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ABSTRACT

This document was written as a reference guide for students, counselors, parents, teachers, and educators in general. It attempts to explain the role of the college major and its impact upon the career planning process, and it encourages students to compare the factors which led them to select certain majors with careers which naturally flow from those majors. For each of the 61 college majors and career fields listed in the book, there are sections which: (1) provide a general definition of the major field including some of the areas of specialization within it; (2) list related occupations and the minimum level of education generally associated with each occupation; (3) identify some related avocational and leisure-time activities; (4) present a partial list of related skills; (5) list some values and personal attributes generally associated with the field of study; (6) cite books and articles which provide additional information related to the major and its career options; and (7) list professional associations related to the subject or field which may distribute additional information. Appendices include descriptions of selected occupations, definitions of selected skill statements, definitions of values and personal attributes, lists of college majors and related high school courses, the number of degrees awarded by fields, and a list of publishers of resources cited in the book. A bibliography of 132 items is included. (NB)

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COLLEGE MAJORS AND CAREERS: A RESOURCE GUIDE FOR EFFECTIVE LIFE PLANNING

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**COLLEGE MAJORS AND CAREERS:
A RESOURCE GUIDE FOR EFFECTIVE LIFE PLANNING**

by

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Grand Rapids Junior College

ABOUT THE AUTHOR:

Paul Phifer holds a Master of Arts degree in Guidance & Counseling from Western Michigan University. He has been an educator for 16 years and held positions as a high school history and sociology instructor as well as a guidance counselor. At the college level, Mr. Phifer served as an Upward Bound Counselor and Supervisor of Career Planning. He is currently Director of the Career Resource Center at Grand Rapids Junior College. Since becoming a career specialist, Mr. Phifer has counseled nearly 2,000 clients in life planning and developed and implemented numerous seminars and workshops in addition to lecture presentations to school and community groups. Mr. Phifer is the author of an inter-institutional publication *I'm Interested In . . . A Collection of Career Briefs Related to the Arts and Sciences*.

Mr. Phifer is married and the father of two boys and two girls. He has served as a Big Brother for many years and is the coordinator of his local church's junior program.

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DEDICATION

To Margaret, Velester, Ayana, Khary and Kimani,
for their patience, understanding and support.

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I would like to express my sincere appreciation to Deborah Orr May and the University of Michigan Career Planning and Placement staff whose Opportunities Briefs served as one of several catalysts leading to the development of this directory; to Sherry Daverman and Shirley Kaleefey, for their clerical and secretarial assistance; to those Grand Rapids Junior College staff members who shared their professional comments, and description suggestions; to Richard Calkins, Cornelius Eringaard, Elias Lumpkins and Dick Bezile, for their timely administrative support and advice; to Robert Hurd, for his professional recommendations; to Robert Calvert Jr., whose advice and resource assistance significantly contributed to both the expansion and quality of this manuscript; and to the numerous other individuals whose names are not mentioned but whose cooperation helped to make this directory a reality. Finally, but most importantly, to God Almighty, whose enabling power provided me with the foresight, initiative and perseverance, without which the completion of this directory would not have been possible.

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SECTION 1

WHY THIS BOOK IS NEEDED

As a career counselor, I talk to dozens of students each week about their career plans. Far too many, as most books attest, wait until too late in their educational programs to develop effective career plans. Most have little knowledge about how college majors may be used in jobs. Too many ignore the link between the type of person who selects a particular major and jobs requiring similar values, interests and skills.

College Majors and Careers was developed with the help of experts in the 61 major fields which it describes. Portions of the book have been tested with students and professionals and used to enrich seminars and presentations for counselors and other student personnel workers over the past few years. Repeated requests for this information from colleagues eventually led to publication of this directory.

The college majors selected for inclusion in this directory were chosen on the basis of student interest as shown by figures from the US Department of Education's Center for Statistics studies of graduates by fields of study. The number of two- and four-year college degrees awarded by fields are shown in Appendix E.

There are dozens, maybe hundreds of books on how to pick a college. There are probably even more books about how to pick a career and how to get a job. However, the role of the college major and its impact upon the career planning process has been unclear, at best.

This book encourages students to compare the factors which led them to select certain majors with careers which naturally flow from them. The same factors which influenced their choice of a major are likely to be those which encourage working in areas requiring the same interests, values and skills.

College Majors and Careers should be an important addition to the career libraries of guidance counselors at the junior and senior high level as they advise students about colleges and courses. It should be just as important for use in career counseling and placement offices in colleges and universities. Teachers, librarians, and other student personnel workers will find the book to be a handy, finger-tip reference. Linking college majors and career plans provides valuable insights into individual preferences and should pave the way for the student to experience personal fulfillment leading to a richer, more satisfying life.

A Word of Caution . . .

The human being is intricately complex. The student must realize that most people are more of a combination of the characteristics cited on several briefs rather than just one. Consequently, the student should carefully explore the key aspects of each of the briefs they relate to best. It is suggested that the student follow-up on exploration in this directory by contacting a career counselor.

The information provided about each subject represent a starting point only. Assistance with more detailed exploration can be provided by a career counselor and via materials found in career resource centers, counseling offices, libraries and departmental offices.

Clusters of Majors . . .

While majors are presented alphabetically, they may also be viewed as members of families of related majors. History and political science, for example, are social science fields.

Here's how the majors cluster in general fields.

AGRICULTURE AND HORTICULTURE

- Agriculture
- Forestry
- Horticulture

**ARCHITECTURE, CONSTRUCTION
AND TECHNOLOGY**

- Architecture
- Construction
- Electrical/Electronics Technology
- Industrial and Precision Technology
- Mechanics and Related Services
- Transportation

BUSINESS AND RELATED AREAS

- Accounting
- Banking and Finance
- Business Administration and Management
- Hotel/Motel Management
- Marketing and Distribution
- Secretarial Science

**CULINARY ARTS, FOOD SERVICE
AND RECREATION**

- Culinary Arts
- Food and Beverage Management/Service
- Home Economics
- Recreation and Lesiure

ENGINEERING

- Aerospace
- Chemical
- Civil
- Electrical/Electronics
- Industrial
- Mechanical
- Metallurgical and Mining

FINE AND PERFORMING ARTS

- Art
- The Performing Arts

**GOVERNMENT, PUBLIC SERVICE
AND RELATED AREAS**

- Education
- Law
- Legal and Protective Services
- Library and Information Science
- Military Science
- Religion and Theology
- Social Work

HEALTH CARE, MEDICINE AND NURSING

- Allied Health Science
- Allied Health Assisting and Technology
- Health Administration, Management and
Related Services
- Medicine
- Nursing and Related Services

LANGUAGE ARTS

- Communications
- English
- Foreign Language
- Philosophy

LIFE SCIENCES

- Biology
- Botany
- Physiology
- Zoology

PHYSICAL SCIENCE AND MATH

- Astronomy
- Chemistry
- Computers
- Geology
- Mathematics
- Physics

SOCIAL SCIENCE

- Anthropology
- Economics
- Geography
- History
- Political Science
- Psychology
- Sociology

SECTION 2

WHO WILL BE HELPED BY THIS BOOK?

College Majors and Careers should be a valuable reference guide for students, counselors, parents, teachers and educators in general.

For Students . . .

Introduces them to a wide variety of college courses and provides an overview of their content and interrelationship.

Emphasizes personal traits normally associated with success in the major and in careers which most logically follow it.

Points out leisure-time activities often associated with various majors.

Points out the approximate length and level of education required for employment in cited occupations.

Provides a summary description of each major field.

List transferable skills useful in pursuing various academic programs.

Serves as a springboard and motivation for more in-depth and realistic career exploration.

Cites resources and organizations providing more information about each field.

For Counselors . . .

Provides a new resource to augment existing data on college study and occupational life.

Helps motivate students by showing more clearly the relationships between study and later life.

Helps reduce curriculum, program and course misplacements by providing students with information which can lead to more effective college major planning.

Serves as a resource for teacher inservices and counselor training sessions.

Provides considerably more specific information for assisting students in college major planning than has been available to date.

Lists books and organizations which may provide more background information.

For Parents . . .

Helps them see more clearly the relationship between college study and work.

Provides background for discussing college plans with offspring who are current or prospective college students.

Cites references and resources for additional research.

For Teachers . . .

Highlights the career significance of their work. Makes it easier to motivate students by citing jobs related to their studies. Provides information useful in course orientation and introductions. Provides information to help teachers suggest career options to students.

Makes available a resource which may be used to stimulate more self-exploration on the part of students.

Encourages more use of the classroom as a laboratory for career exploration projects and class reports.

Provides information which may help misplaced or misguided students.

Encourages high school and college academic departments to become more aware and sensitive to the career activities of their graduates.

Provides a textbook for use in career education classes or as a referral source in libraries.

For College Counselors and Other Student Personnel Workers . . .

Offers a new source of information to help counsel, attract and recruit students in the admissions process.

Provides the background for building closer links between the counseling staff and academic departments.

Provides a base of knowledge useful in meeting student questions about educational programs and career options.

Suggests part-time and summer job options for college students which may be closely related to academic training and potential career choices.

Serves as a useful reference resource to be used by counseling center clients as a part of their self-development research.

Helps employers, in the placement process, to see how various aspects of college support services can contribute to the readiness and perseverance of future new employees.

Provides specific information related to career direction suitability which should be useful for Upward Bound and Special Services personnel in meeting governmental guidelines.

SECTION 3

HOW THIS BOOK IS ORGANIZED AND HOW TO USE IT

Each of the college majors and career briefs contains the information described below in a consistent format which makes for easy reference.

I'M INTERESTED IN . . . provides a general definition of the major field including some of the areas of specialization within it.

SOME RELATED OCCUPATIONS . . . lists types of work reported by graduates with that major indicating employment for which the training would be particularly appropriate. Some occupations require additional academic training for licensure for full professional status. Interested students are encouraged to contact a career counselor or academic advisor about these requirements.

After each of the occupations, the minimum level of education generally associated with the field is indicated by the following codes:

- AA = Associate degree (or two full years of college study after high school) generally required or very helpful. In some cases, people enter the field after taking specialized courses which may not require two full years.
- B = Bachelor's degree (or four full years of college study after high school) generally required or very helpful. This may be a BA (Bachelor of Arts) or BS (Master of Science) degree.
- M = Master's degree preferred for the field; usually requires one or two years of study after the bachelor's. This may be an MA (Master of Arts) or MS (Master of Science) degree.
- P = First professional degree required; usually after completion of bachelor's degree. Illustrative professional degrees include the BD (Bachelor of Divinity), LLB (law school degree), MD (Doctor of Medicine), and DDS (Doctor of Dental Science).
- D = Doctor's degree is preferred for full professional status in the field. Illustrative are the PhD or EdD which usually take from three to five years after the bachelor's degree.
- V = Vocational training generally required; may include a combination of academic and work experience.

Sometimes, two or more codes appear after the occupation which means that employers will hire on the basis of more than one level of education. For example, under Communications, employers will hire news photographers with either an AA or B degree, meaning that they hire some with a two-year certificate and others with a four-year bachelor's degree.

Definitions for nearly 400 of the cited occupations appear in Appendix A. These were picked from among those occupations not as well known as, for example, news photographer.

SOME RELATED AVOCATIONAL AND LEISURE-TIME ACTIVITIES . . . identifies hobbies, interests and involvements often related to the major as well as to many of the occupations cited. These are often things that students have done and the list provides a clearer picture of how extracurricular activities are related to majors, occupations and other life activities.

SOME RELATED SKILLS . . . presents a partial list of skills which may be related to success in the major, occupation or are frequently used in them. Some are natural inborn traits (aptitudes); others are acquired through

practice, study or extra effort (abilities). Some of the skills may be developed or discovered while the person is advancing in a course of study or occupation. The list of skills also provide a valuable and time-saving stop-check for students who may be mistakenly moving in an unsuitable direction.

Definitions of skill statements which may be difficult to understand are found in Appendix B. Definitions do not appear for those skills whose titles are believed to be self-explanatory.

SOME VALUES AND PERSONAL ATTRIBUTES . . . lists some of the motivations generally associated with the field of study. This is not to imply that other values are not present or that these values are true of everyone interested in the subject. The values listed should help students to determine if the subject, and those related to it, will move them closer to what is really most important to them in life. Selected definitions of values and attributes which may be hard to interpret are found in Appendix C. Definitions are not included for those terms and statements which appear to be self-explanatory.

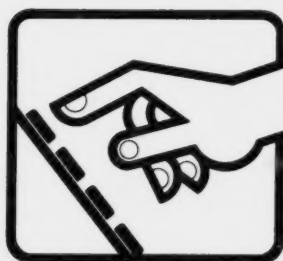
SOURCES FOR FURTHER EXPLORATION . . . cites books and articles which provide additional information related to the major and its career options. The two most widely used resources, while not listed under each major field, are the *Occupational Outlook Handbook* (published every other year by the U.S. Department of Labor) and the *Encyclopedia of Careers and Vocational Guidance* (revised every few years and published by J. G. Ferguson Company). Copies of both of these key reference volumes are found in libraries as well as most career counseling and job placement offices and libraries. It is strongly suggested that the student augment the resources cited in this book with references which may be suggested by a local counselor or teacher.

SOME RELATED ORGANIZATIONS . . . lists professional associations related to the subject or field which may distribute additional information. For names of other groups in the major field of interest, see the *Encyclopedia of Associations* (published by Gale Research Company), or the *National Trade and Professional Association* (published by Columbia Books). These are particularly useful sources to consult in the event that an association has moved to a new address.

Please be aware that due to similarities in definition, the words "major, college majors, fields of study, fields, subject" and like terms are used interchangeably and all refer to one's major area of study.

SECTION 4

COLLEGE MAJORS AND CAREER FIELDS



I'M INTERESTED IN . . .

ACCOUNTING

Accounting involves the examination, organization, management and design of accurate recording and reporting procedures of financial and business trans-

actions. The study of accounting attempts to make the student aware of the various ways one can maintain accurate, up-to-date, financial and business practices. This includes a focus on methods of compilation, verification supervision,

revision, examination, efficiency recording, designing and reporting of such practices for both individuals and businesses. Knowledge and implementation of good accounting procedures are required if financial or business success is to be realized, whether it be for an individual, family or business. A few of the major specializations include public accounting, management accounting, tax accounting, cost accounting, government accounting, budget accounting, and internal auditing.

SOME RELATED OCCUPATIONS

Accountant—B
Actuary—B
Appraiser/Assessor—B
Bank Officer—AA/B
Bookkeeper—AA/V
Budget Accountant—B
Computer Programmer—B
Controller—B/M
Cost Accountant—B
Credit Manager—AA/B
Economist—B

Educator—B
Financial Analyst—B
Financial Planner—B/M
Insurance Adjuster—AA
Insurance Agent—AA
Internal Auditor—B
Internal Revenue Agent—B
Investment Banker—B
Management Accountant—B
Management Consultant—B/M
Mathematician—B

Public Accountant—B
Purchasing Agent—B
Research Analyst—B
Statistician—B
Stockbroker—AA
Systems Analyst—B
Tax Accountant—AA/B
Tax Specialist/Preparer—AA/B
Treasurer—B/M
Underwriter—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working as a part-time or volunteer treasurer or income tax preparer; maintaining an accurate personal check book; joining a professional accounting organization; reading accounting-related publications; joining a financial advisory board; solving problems

involving analytical and logical processes; attending accounting-related lectures, trade shows or conventions; working as a student aide in a high school or college accounting department; working with a home micro-computer.

ACCOUNTING

SOME RELATED SKILLS

Proficiency in written and oral communication
Ability to organize, analyze and interpret numerical data
Aptitude for accuracy details
Ability to operate and use information derived from computers
Ability to work alone and concentrate for long periods of time

Ability to make sound judgments and decisions and to solve quantitative problems
Ability to explain complex financial data to others
Intellectual capacity to do well in most undergraduate or graduate college curriculums
Ability to lead, supervise and direct others

Definitions for less familiar skill statements appear in Appendix B.

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Intellectual growth
Independence
Recognition and appreciation from others
Skill with numbers

Tendency toward analytical and logical thinking
Capacity for precision, detail and order
Ability to frame inquiry and respond objectively

Patience
Integrity
Thoroughness
Alertness
Resourcefulness
Imagination

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Accountants." *Career Brief*. Largo, FL: Careers, Inc., 1981.

"Accountants and Auditors." *Occupational Outlook Handbook*. U.S. Department of Labor, Washington, DC: DOL, 1986-87.

American Women's Society of Certified Public Accounts. *Accounting: A Career for Women*. Chicago: AWSCPA, n.d.

Gaylord, Gloria L. and Glenda E. Reid. *Careers in Accounting*. Dow Jones-Irwin, 1984.

Muller, Peter. *Fast Track to the Top in Accounting Careers*. Walpole, NH: Perigee, 1984.

Rosenberg, Martin. *Opportunities in Accounting*. Lincolnwood, IL: VGM Career Horizons, 1983.

SOME RELATED ORGANIZATIONS

American Institute of Certified Public Accountants
1211 Avenue of the Americas
New York, New York 10036

American Accounting Association (AAA)
5715 Bessie Drive
Sarasota, FL 33583



I'M INTERESTED IN . . .

AEROSPACE ENGINEERING

Aerospace Engineering is the study of the practical application of physical science and mathematics in the research, design, development, testing, launching and produc-

tion of aircraft, spacecraft, navigational systems and

related equipment, systems and processes in an efficient and economical manner. It involves the design and production of power units, vehicle structure, aerodynamics and guidance control as well as airplane, rocket, missile and satellite launching. Specialties include aircraft design, guidance systems, instrumentation, fluid mechanics, thermodynamics, satellites, helicopters, rockets, military aircraft, etc.

SOME RELATED OCCUPATIONS

Aerodynamist—B
Aeronautical Engineer—B/D
Aerospace Engineer—B/D
Aerospace Engineering Technician—AA
Aircraft Mechanic—AA/V
Airplane Pilot—AA/B
Air Traffic Controller—B/V
Astronomer—D
Astrophysicist—B/D
Chemical Engineer—B

Chemist—B/D
Civil Engineer—B
Computer Programmer—B
Computer Science Engineer—B
Consulting Engineer—B
Electrical Engineer—B
Electronics Technician—AA
Engineering Educator—B
Environmental Engineer—B
Environmentalist—B
Marine Engineer—B

Mathematician—B
Mechanical Engineer—B
Metallurgical Engineer—B
Nuclear Engineer—B/D
Petroleum Engineer—B
Physicist—B/D
Research Engineer—B
Safety Engineer—B
Sales Engineer—B
Systems Analyst—B
Systems Engineer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Reading publications related to flying or space; viewing aircraft or space-related documentaries and programs on TV or at the movies; developing hobbies and collections around model airplane kits, cars, mechanics, electronic games and equipment, etc.; air

travel; attending lectures or conferences related to aviation or engineering; visiting science museums and exhibits; member of a club or organization such as the American Institute of Aeronautics and Astronautics; solving analytic and logic problems.

SOME RELATED SKILLS

High proficiency in mathematics and physical sciences
Ability to analyze, organize and interpret scientific data
Ability to work well with others
Ability to make keen observations and sound judgments
Aptitude for accurate details, spatial perception and abstract reasoning
Sensitive to economic considerations and human needs

Proficiency in one's area of specialization and knowledgeable of current practices and trends
Able to conduct and clearly communicate scientific research
Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Ability to operate and use information derived from computers

Definitions for less familiar skill statements appear in Appendix B.

AEROSPACE ENGINEERING

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity
Knowledge
Achievement
Desire to help others live better
Strong interest in aviation and
space

Like seeing ideas developed into
practical use
Curiosity
Imagination

Perseverance
Responsible
Capable
Integrity

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Aerospace Engineer." *Career Brief*. Largo, FL: Careers, 1983.

"Engineering." *The World Book Encyclopedia*. 1985 ed.

General Electric Company. *What's It Like to be an Engineer?* Fairfield, CT: General Electric.

Posner, Alice. *Women in Engineering*. Lincolnwood, IL: VGM Career Horizons, 1981.

Reyes-Guerra, David R. and Alan M. Fischer. *Peterson's Guide to Undergraduate Engineering Study*. Princeton: Peterson's Guides.

Shanahan, William. *Engineering Career Guide*. New York: Arco, 1982.

SOME RELATED ORGANIZATIONS

American Institute of Aeronautics
and Astronautics Inc.
1633 Broadway
New York, N.Y. 10019

National Society of Professional Engineers
1420 King Street
Alexandria, Virginia 22314



I'M INTERESTED IN ...

AGRICULTURE

Agriculture is the science of growing crops and raising livestock. It involves methods of planting, cultivating, fertilizing, har-

vesting, processing and distributing fruits, vegetables and nursery stock. Also, it includes the raising, feeding, breeding and marketing of livestock. In addition,

agricultural study exposes the student to the various by-products of livestock such as dairy products, eggs, honey, fur, etc. Agricultural research related to increasing the yield and quality of products and by-products, sanitation, diseases, methods of efficiency and other areas are still other important areas of interest.

SOME RELATED OCCUPATIONS

Agricultural Economist—B/D
Agricultural Engineer—B
Agronomist—B
Animal Breeder—V
Animal Scientist—B
Beekeeper—V
Biochemist—B
Biologist—B
Botanist—B
Cattle Farmer—B/V
Chemical Lab Technician—AA
Cooperative Extension Agent—B
Dairy farmer—B/V
Dairy Technologist—B

Educator—B/D
Entomologist—B
Farm Equipment Dealer—V
Farm Equipment
Mechanic—AA/V
Farm Manager—B/V
Feed Store Operator—V
Fish Farmer—V
Florist—V
Food Technologist—B
Fruit Farmer—B/V
Grain Buyer—V
Grain and Feed Miller—V

Horticulturalist—B
Laboratory Assistant—AA
Landscape Gardener—AA
Microbiologist—B
Nursery Manager—V
Parasitologist—B
Physiologist—D
Plant Breeder—V
Poultry Farmer—B/V
Sanitarian—B
Soil Conservationist—B
Vegetable Farmer—B/V
Veterinarian—P

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer on a farm, ranch, in a pet shop, in a garden center or in a zoo; gardening; acquiring and caring for pets; member of Future Farmers of America or 4-H; scouting, attending farm shows and fairs, working as a student aide or volun-

teer in a school science or college agriculture department; attending clinics, lectures and workshops related to agriculture, reading agriculture related publications, developing hobbies and collections around gardening, horses and/or raising livestock.

SOME RELATED SKILLS

Possess a good understanding of and familiarity with agricultural techniques and applications
Physical stamina, good vision and manual dexterity
Ability to recognize differences in shapes, shading and color
Proficiency in reading and writing
Ability to make critical observations and sound judgments
Ability to organize, analyze and interpret scientific data

Ability to make appropriate decisions and apply scientific methods to agricultural concerns
Ability to manage and supervise others
Able to work both alone as well as with others
General knowledge of farm supplies, equipment, services and business/marketing practices
Aptitude for science and mathematics

Definitions for less familiar skill statements appear in Appendix B.

AGRICULTURE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Independence
Helping people
Achievement
Strong interest in agriculture

Fondness for outdoor activities
Ability to adapt to frequent changes
Patience

Responsibility
Perseverance
Resourcefulness
Industriousness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Agricultural Researchers." *Career Brief*. Largo, FL: Careers, Inc., 1984.

"Farmers." *Career Brief*. Largo, FL: Careers, Inc., 1983.

There's A New Challenge in Agriculture. Park Ridge: American Farm Bureau Federation, 1974.

Your Career in Agriculture Agribusiness. Alexandria, VA: The Future Farmers of America. FFA, n.d.

SOME RELATED ORGANIZATIONS

Future Farmers of America
Attention: Career Information
P.O. Box 15160
Alexandria, VA 22309

U.S. Department of Agriculture
Extension Service
Washington, D.C. 20250



I'M INTERESTED IN . . .

ALLIED HEALTH ASSISTING and TECHNOLOGY

Allied health assisting and technology involves the study of areas of technological support and health-related assistance to physicians, dentists and other health professionals. It is an area of study in which the skills and services learned are considered essential to effective

health care services in industrialized societies. Among the various specializations are dental assisting, hygiene and technology; medical laboratory technology and assisting; radiography, health care, dietetics and nutrition, and physical and occupational therapy.

SOME RELATED OCCUPATIONS

Biomedical Equipment
Technician—AA
Cytotechnologist—AA/B
Dental Assistant—AA
Dental Lab Technician—AA
Diagnostic Medical
Sonographer—AA
Dietetic Technician—AA
EEG Technologist—AA
EKG Technician—AA
Emergency Medical
Technician—AA

Environmental Health
Technician—AA
Medical Assistant—AA
Medical Lab Technician—AA
Medical Records Technician—AA
Mental Health Technician—AA
Occupational Therapist
Assistant—AA
Ophthalmic Medical
Assistant—AA
Optician—AA

Optometric Assistant—AA
Perfusionist—V
Radiologic Technologist—AA
Physical Therapist Assistant—AA
Podiatric Assistant—AA
Prosthetic-Orthotic
Technician—AA
Respiratory Therapy
Technician—AA
Surgeon's Assistant—AA
Surgical Technician—AA

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Attending science fairs, exhibits and visiting museums;
reading health related publications serving as a first
aide helper in a church or health agency; working
part-time in a hospital, med-center or nursing home;

attending lectures and workshops related to health
care services; watching medically related dramas on
television or at the movies; actively supporting health
care expansion and medical research drives.

SOME RELATED SKILLS

Ability to react spontaneously and maintain emotional
and physical composure in stressful situations
High proficiency for accurate details
Proficiency in interpersonal communication
Proficiency in memorization as well as giving and
receiving directions

Physical stamina, good vision and manual dexterity
Ability to make critical observations, sound judgments
and appropriate decisions
Ability to work cooperatively with people of differing
backgrounds and responsibilities
Good motor coordination

Definitions for less familiar skill statements appear in Appendix B.

ALLIED HEALTH ASSISTING and TECHNOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
 Helping others
 Health
 Wisdom
 Like challenges and working
 directly with people

Helpful and friendly attitude
 Sensitive to the needs and pains of
 others
 Willing to work irregular hours
 and weekends

Industrious
 Capable
 Poised
 Dependable
 Resourceful

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Allied Health Education Directory. Chicago: American Medical Association.

Earle, Vung. *Your Career In Medical Technology.* New York: Arco, 1981.

Ilk, Craig. *Student's Career Guide to A Future in the Allied Health Professions.* New York: Arco, 1982.

200 Ways To Put Your Talent To Work In The Health Field. New York: National Health Council, 1987.

SOME RELATED ORGANIZATIONS

American Medical Association
 Dept. of Allied Health Education and Accreditation
 535 N. Dearborn Street
 Chicago, IL 60610

American Medical Technologists
 710 Higgins Rd.
 Park Ridge, IL 60068

American Association of Medical Assistants
 20 N. Wacker Drive Suite 1576
 Chicago, IL 60606



I'M INTERESTED IN . . .

ALLIED HEALTH SCIENCES

Allied health sciences is the study of health science areas which are related to and supportive of medical services provided

by physicians and dentists. Students are exposed to ways of supporting and maintaining health care and medical services for individuals and populations. In

addition, students learn about scientific educational and social approaches of prevention and control of diseases, sickness and injuries. Some of the special areas of concentration include environmental health, occupational safety and health, dental and medical technology, research and health education.

SOME RELATED OCCUPATIONS

Biomedical Engineer—B
Biostatistician—B/M
Blood Bank Specialist—B
Clinical Chemist—B
Dental Hygienist—AA/B
Dietician—B
Health Educator—B/D
Health Microbiologist—B
Health Science Librarian—B/M

Health Science Writer—B
Medical Engineer—B
Medical Illustrator—B
Medical Physicist—B/D
Medical Technologist—B
Nuclear Medical Technologist—B
Nutritionist—B
Physician's Assistant—AA/B

Prosthetic Orthotist—AA/B
Radiation Therapy
Technologist—AA
Radiologic Health Specialist—B
Technical Science Writer—B
Tissue Technologist—V
Vocational Rehabilitation
Counselor—B/M

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Attending science fairs, health exhibits, and visiting museums; reading health science related publications; doing lab experiments and researching health science-related topics; working part-time or as a volunteer for a health agency, in a hospital or in a school health science department; writing reports and summaries;

watching TV programs and movies related to the health sciences; attending health related lectures and workshops; member of a health science club, health guild or professional organization; actively supporting health care expansion and medical research drives.

SOME RELATED SKILLS

Ability to concentrate for long periods of time
Ability to conduct and clearly explain scientific research
Ability to make critical observations and appropriate decisions
Ability to work under pressure and meet deadlines
High proficiency for accurate details
Proficiency in observing, collecting and analyzing scientific data

Proficiency in reading, writing, speaking and memorization
General knowledge of health sciences
Physical stamina, good vision and manual dexterity
Intellectual capacity to perform well in most undergraduate and graduate college curriculums

Definitions for less familiar skill statements appear in Appendix B.

ALLIED HEALTH SCIENCES

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Intellectual Growth
Achievement
Wisdom
Health

Desire to help others and make a
contribution to mankind
Interest in public health and safety
Sensitive to the needs and pains of
others

Scientific Inquiry
Patience
Self-discipline
Thoroughness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Allied Health Education Directory. Chicago: American Medical Association, 1985.

Cavallano, Ann. *The Physician's Associate: A New Career in Health Care*. New York: Elsevier, 1978.

Eron, Carol. *Fast Track to the Top Jobs in New Medical Careers*. Walpole, NH: Perigee, 1984.

200 Ways To Put Your Talent To Work In The Health Field. New York: National Health Council, 1987.

Norback and Company. *Allied Health Schools*. New York: Arco, 1985.

Snook, Donald and Leo D'Orazio. *Opportunities in Health and Medical Careers*. Lincolnwood, IL: VGM Career Horizons, 1983.

Wischnitzer, Saul. *Futures in Health*. Woodbury, NY: Barron's, 1985.

SOME RELATED ORGANIZATIONS

American Health Care Association
1200 15th Street, N.W.
Washington, D.C. 20005

American Institute of Biological Sciences
730 11th Street
Washington, D.C. 20001

U.S. Department of Health and Human Services
HRSA—Bureau of Health Professions
5600 Fishers Lane
Rockville, MD 20857



I'M INTERESTED IN . . .

ANTHROPOLOGY

Anthropology is the study of the origin and development of mankind. It attempts to provide the student with a better understanding of human physical differences, language systems, and the way cultures today compare with cultures of the past.

Also included is the study of animal development and how it compares with human development. Anthropology is divided into the following sub-branches: cultural anthropology, physical anthropology, linguistic anthropology, and archeology.

SOME RELATED OCCUPATIONS

Anthropologist—D
Archaeologist—D
Archivist—B
Art Conservator—B
Biographer—B
Curator—B
Economist—B
Educator—B/D

Ethnologist—D
Genealogist—B
Geographer—B
Historian—B/D
Librarian—B
Museum Worker—V
Paleontologist—B

Political Scientist—B/D
Psychologist—B/D
Research Associate—B
Scientific Linguist—D
Social Worker—B/M
Sociologist—D
Technical Writer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Visiting libraries and museums; participating in historical preservation efforts; doing historical research; camping; backpacking and exploring; participating in archeological field experiences; reading publications related to anthropology; joining an organization such

as the American Anthropological Association; collecting relics, antiquities, and artifacts; working part-time or as a volunteer in an antique shop or in an anthropology department; serving as a graduate research assistant.

SOME RELATED SKILLS

Background of general knowledge
Aptitude for foreign language
Intellectual capacity to perform well in most undergraduate or graduate curriculums
Proficiency in reading comprehension, writing, and speaking
Ability to conduct and explain scientific research clearly

Good vision, spatial and manual dexterity
Ability to operate and use information derived from computers
Ability to accurately interpret and evaluate events, information and ideas representing the past

Definitions for less familiar skill statements appear in Appendix B.

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Appreciation for and understanding of other cultures
Desire for recognition and to influence mankind

Desire to research and explore the human past
Interest in learning about the similarities and differences between cultures
Patience

Alertness
Curiosity
Resourcefulness
Integrity
Imagination

ANTHROPOLOGY

SOURCES FOR FURTHER EXPLORATION

"Anthropologist" *Career Summary*. Largo, FL: Careers, Inc., 1983.

"Anthropology." *The World Book Encyclopedia*.

Guide to Departments of Anthropology. Washington, DC: American Anthropological Association.

On Becoming an Anthropologist. Washington, DC: American Anthropological Association.

What Is Anthropology? Washington, DC: American Anthropological Association, 1982.

SOME RELATED ORGANIZATIONS

American Anthropological Association
1703 New Hampshire Avenue, N.W.
Washington, D.C. 20009

Society For Applied Anthropology
P.O. Box 24083
Oklahoma City, OK 73124



I'M INTERESTED IN . . .

ARCHITECTURE

Architectural study includes design, construction and development of both physical structures and the natural environment. It exposes the student to the combined skills of creative esthetics and practical functionability. The field of architecture involves many responsibilities which include planning layout, drawing, research, design, making modifica-

tions, selecting materials and equipment, estimating time requirements and costs, determining specifications, supervision and inspection, writing reports, etc. Very few of us can escape the results of architectural design; it is evident in our houses, churches, office buildings, hospitals, airports, bridges, highways, parkways, recreational facilities and community developments. Landscape architecture and naval architecture are two major specialties within this area.

SOME RELATED OCCUPATIONS

Aeronautical Drafters—AA

Architect—B

Architectural Drafter—AA

Architectural Technician—AA

Building Contractor—V

Cartographer—B

Civil Engineer—B

Civil Engineering Technician—AA

Commercial Artist—AA/B

Computer Graphics

Technician—AA

Contract Administrator—B

Drafter—AA

Educator—B/D

Electrical/Mechanic Engineer—B

Graphic Designer—AA

Industrial Designer—B

Illustrator/Renderer—V

Interior Designer—B

Landscape Architect—B

Mechanical Engineer—B

Model Maker—V

Naval Architect—B

Structural Engineer—B

Surveyor—AA

Technical Illustrator—AA

Technical Photographer—AA/B

Technical Writer—B

Urban Planner—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Taking art classes; drawing and sketching for fun, developing hobbies related to building models; working part-time or as a volunteer on a construction site or in an architectural firm; joining an architecturally-related organization such as the Association of Student Chapters of The American Institute of Architects or The American Institute of Architects; reading pub-

lications related to architecture; doing jigsaw puzzles and playing games of strategy; designing house furniture and landscapes; taking elective courses like geometry, mechanical drawing, and blueprint reading; attending architecture-related lectures, workshops, trade shows or conventions; serving as a student aide in a high school or college architecture department.

SOME RELATED SKILLS

Aptitude for accurate detail

Ability to apply complex mathematical and engineering concepts to practical real-life problems

Acute spatial and form perception

Ability to work with others as well as work alone for long periods of time

Ability to make critical observations and appropriate decisions

Aptitude for drawing and sketching

Ability to recognize differences in shapes, shading and color

Intellectual capacity to perform well in most undergraduate or graduate college curriculums

Ability to work under pressure and meet deadlines

Aptitude for math

Ability to communicate ideas both orally and in writing

Ability to conduct and clearly explain scientific research

Definitions for less familiar skill statements appear in Appendix B.

ARCHITECTURE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity	Able to adapt to fluctuations and deadlines	Imagination
Achievement		Artistic
Desire for recognition and appreciation from others	Able to accept public scrutiny and criticism	Practical
Aesthetic awareness	Analytical	Perseverance
Appreciation for aesthetics and logical processes		

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Architects." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.

"Architecture." *The World Book Encyclopedia*.

Gordon, Susan. *Your Career in Interior Design*. New York: Arco, 1983.

Lewis, Roger K. *Architect?: A Candid Guide to the Profession*. London: MIT Press, 1985.

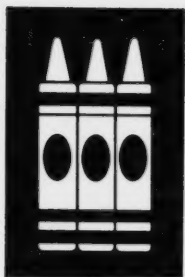
Piper, Robert. *Opportunities in Architecture*. Lincolnwood, IL: VGM Career Horizons, 1979.

Stein, Benjamin. *Opportunities in Drafting*. Lincolnwood, IL: VGM Career Horizons, 1981.

SOME RELATED ORGANIZATIONS

Association of Student Chapters,
American Institute of Architects (ASC/AIA)
1735 New York Avenue, N.W.
Washington, D.C. 20006

American Institute of Architects
1735 New York Avenue, N.W.
Washington, D.C. 20006



I'M INTERESTED IN . . .

ART

Art is the study of the various creative means of expressing human thoughts, interests, attitudes, emotions and ideas. It involves both fine art and commercial art. Fine art study usually includes painting and drawing, sculpture, photography, printmaking and crafts. Commercial art revolves around advertisement

and includes design, illustration, film, video tape, television, murals, cards, posters, etc. Art history, art education, advertising, art therapy, journalism, and public relations are other key areas of concentration. Some additional areas of specialization are ceramics, pottery, weaving, textile design, fashion or jewelry design, interior decorating and metalsmithing.

SOME RELATED OCCUPATIONS

Antique Dealer—V
Architect—B
Archivist—B
Arranger—AA
Art Appraiser—B
Art Director—B
Art Therapist—B/M
Cartographer—B
Cartoonist—AA/B
Copy Writer—B
Critic (music, art, & film)—B
Curator—B

Director of Cinematography—B/V
Educator—B/D
Fashion Illustrator—AA
Film Editor—AA
Film Producer—B
Florist—V
Free Lance Artist—AA
Graphic Designer—AA/B
Industrial Designer—B
Interior Decorator—A
Jeweler—AA/V

Medical/Scientific Illustrator—V
Model Maker—V
Motion Picture Photographer—B
Painter—B/V
Photojournalist—AA/B
Production Manager—V
Sculptor—V
Script Writer—B
Sign Painter—V
Sound Engineer—AA/V
Television Director—B/V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Entering art contests; part-time worker or volunteer in an art studio, museum or advertising agency; collecting art, jewelry, crafts; serving as a photographer or artist for a school newspaper; attending art shows, festivals and art exhibits; collecting antiques; developing

skills in weaving, sculpture, macrame, furniture restoration, photography, etc.; free lance drawing and painting; sewing, knitting, and crocheting; making and editing movies; helping to develop advertising material for local community service groups, etc.

SOME RELATED SKILLS

Proficiency for accurate details
Ability to concentrate intensely for long periods
Ability to communicate ideas and emotions creatively
Ability to recognize difference in shapes, shading, and color

Aptitude for spatial relationships
Ability to meet deadlines
Good finger and manual dexterity
Ability to make critical observations and appropriate decisions

Definitions for less familiar skill statements appear in Appendix B.

ART

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Aesthetics
Independence
Self-expression and personal fulfillment
Desire to influence others
Creativity

Feel for design, and form
Ability to adjust to "ups" and "downs"
Ability to adjust to close public scrutiny and criticism
Imagination

Curiosity
Patience
Perseverance
Dedication
Flexibility
Self-Discipline

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Artists." *Career Brief*. Largo, FL: Careers, 1980.

Career Associates. *Career Choices For Students of Art*. New York: Walker, 1984.

Casewit, Curtis. *Making A Living in the Fine Arts: Advice from the Pros*. New York, NY: MacMillan, 1981.

Holden, Donald. *Art Career Guide*. Lakewood, NJ: Watson-Guptill, 1983.

Ito, Dee. *Careers in the Visual Arts*. New York: School of Visual Arts Press, Ltd., 1984.

Sommer, Elyse. *Career Opportunities in Crafts*. New York: Crown, 1977.

Sones, Melissa. *Getting Into Fashion: A Career Guide*. New York: Ballantine, 1984.

William, Pattis, S. *Opportunities in Advertising Careers*. Lincolnwood, FL: VGM Career Horizons, 1985.

SOME RELATED ORGANIZATIONS

American Society of Artists
P.O. Box 1326
Palatine, IL 60078

American Artist Professional
League (AAPL)
47 Fifth Avenue
New York, NY 10003



I'M INTERESTED IN . . .

ASTRONOMY

Astronomy, a branch of the physical sciences, involves the study of our Universe—its origin, its physical properties, its changes, and the distribu-

tion of its physical phenomena. An astronomer observes the planets, sun, solar and galaxies, and then analyzes, interprets, and reports the findings. Astronomy is closely associated with mathematics and is usually considered a subdivision of physics.

SOME RELATED OCCUPATIONS

Acoustical Engineer—B
Acoustical Physicist—B
Aerospace Engineer—B
Aerospace Engineering Technician—AA
Astronomer—D
Astrophysicist—B
Biologist—B
Biophysicist—B
Cartographer—B
Chemist—B

Civil Engineer—B
Computer Programmer—B
Educator—B/D
Electrical/Electronics Engineer—B
Electronics Technician—AA
Environmental Scientist—B
Geographer—B
Geologist—B
Geophysicist—B
Health Physicist—B
Laboratory Technician—AA

Mathematician—B
Meteorologist—B/D
Metallurgical Engineer—B
Mineralogist—B
Oceanographer—B
Optical Physicist—B
Radiographer—V
Research Technician—AA
Seismologist—B
Solid State Physicist—B/D

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Visiting planetariums, observatories, and science museums; involvement in outdoor activities; attending science fairs and exhibits; joining a photography club, the American Astronomical Society, the Association of Variable Star Observers, or other astronomy clubs; watching natural science programs on TV; doing lab

experiments and projects; reading astronomy or science publications; working part time or as a volunteer in a planetarium, observatory, campus astronomy department, or weather station; operating a ham radio, computer programming, radio/TV repair, etc.

SOME RELATED SKILLS

Analyze and solve quantitative problems and make appropriate decisions
Proficiency in reading, writing, speaking and memorization
Ability to concentrate for long periods of time
Aptitude for accurate details
Acute spatial and form perception
Proficiency in mathematics

Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Ability to conduct and clearly explain scientific research
Good vision, finger dexterity and mechanical ability
Ability to operate and use information derived from computers

Definitions for less familiar skill statements appear in Appendix B.

ASTRONOMY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Independence
Intellectual growth
Recognition
Tendency toward analytical and logical thinking

Intellectual curiosity towards the atmosphere, space, and universal phenomena, in general
Fondness for physics and mathematics

Imagination
Self-discipline
Perseverance
Patience
Preciseness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Astronomer." *Career Brief*. Largo, FL: Careers, 1983.

"Astronomy." *The World Book Encyclopedia*. 1985 ed.

A Career in Astronomy. New York: American Astronomical Society.

Sheffield, Charles and Carol Rosin. *Space Careers*. Quill, 1984.

SOME RELATED ORGANIZATIONS

American Astronomical Society (AAS)
1816 Jefferson Place, N.W.
Washington, D.C. 20036

Astronomical League
P.O. Box 12821
Tucson, Arizona 85732



I'M INTERESTED IN . . .

BANKING and FINANCE

Banking and finance is a major field in the area of business which involves the study of how money is stored, protected, received, distributed and generally managed. Banking and finance is a broad area and tends to overlap into a number of more specialized fields such as securities and insurance. Study in this area focuses on methods of deposits, withdrawals, checking and sav-

ings accounts, loans, interests, credit, trusts, investments, accounting procedures, budgets and financing, and security. Areas of specialization are numerous and include savings and loans, checking customer service, clerical, accounting, credit cards, computer systems, research, budget, expenditures and cost analysis, supervision and administration, trust services, and security.

SOME RELATED OCCUPATIONS

Account Executive—B
Actuary—B/V
Advertising Manager—B
Appraiser/Assessor—B
Bank Economist—B/D
Bank President—B
Bank Teller—V
Branch Manager—B
Budget Accountant—B
Computer Programmer—B
Controller/Accountant—B
Correspondent Banking Officer—B

Credit Analyst—B
Credit Manager—AA/B
Economist—B/D
Educator—B/D
Financial Aid Officer—B
Financial Analyst—B
Financial Planner—B
Insurance Agent—AA/V
Internal Auditor—B
International Banking Officer—B
Investment Banker—B

Loan Officer—B
Market Researcher—B
Purchasing Agent—B
Securities Clerk—AA/V
Systems Analyst—B
Statistician—B
Stockbroker—B
Treasurer—B
Trust Account Administrator—B
Trust Investment Officer—B
Underwriter—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working as a part-time or volunteer treasurer or tax preparer; participating on a financial advisory board; reading publications related to banking and finance; attending finance related lectures, workshops or conventions; involvement with investment activities; solving problems involving analytical and logical pro-

cesses; joining a professional organization such as the American Banking Association; working part-time in a bank, savings and loans agency or credit union; serving as a student aide in an accounting or business department.

SOME RELATED SKILLS

Ability to organize, analyze and interpret numerical data
Aptitude for accurate detail
Ability to make sound judgments and decisions and to solve quantitative problems
Ability to explain complex financial transactions and data to others
Ability to operate and use information derived from computers

Ability to touch type
Proficiency in written and oral communications
Ability to communicate to and get along with people of differing personalities and backgrounds
Knowledge of financial and economic history, practices and trends

Definitions for less familiar skill statements appear in Appendix B.

BANKING and FINANCE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Wealth
Prestige
Recognition and appreciation from others
Achievement
Possess good eyesight and emotional well-being

Tendency to be organized, confident and businesslike
Can handle money well and like working with both people and data

Integrity
Alertness
Ambitious
Discrete
Trustworthy

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Careers, Inc. "Bank Careers." *Career Brief*. Largo, FL: Careers, 1980.

Paradis, Adrian. *Opportunities in Banking*. Lincolnwood, IL: VGM Career Horizons, 1980.

Sumichrast, Michael and Dean Crist. *Opportunities in Financial Careers*. Lincolnwood, IL: VGM Career Horizons, 1985.

SOME RELATED ORGANIZATIONS

American Bankers Association
Bank Personnel Division
1120 Connecticut Avenue, N.W.
Washington, D.C. 20036

National Association of Bank Women
500 N. Michigan Avenue, Suite 1400
Chicago, IL 60601



I'M INTERESTED IN . . .

BIOLOGY

Biology is the study of life from the simplest forms of plants and animals (including one-celled animals and algae) to the highly complex structure of the human being. It

includes the study of how organisms are structured as well as how they function and relate to each other.

Among the major branches of biology are human anatomy and physiology; botany (the study of plants); microbiology (the study of microscopic organisms); zoology (the study of animals); and ecology (the study of the relationship between organisms and the environment). Interested students may elect to concentrate in one or more of the subdivisions associated with the major biological branches.

SOME RELATED OCCUPATIONS

Biologist—B
Botanist—B
Chiropractor—P
Coroner—B
Dentist—P
Dental Assistant—AA
Dental Hygienist—AA
Dietician—B
Ecologist—B
Educator—B
EEG Technician—AA
Farmer—V
Florist—V
Food Technologist—B
Forester—B

Geneticist—B
Horticulturist—B
Licensed Practical Nurse—AA
Medical Illustrator—B
Medical Lab Technician—AA
Medical Librarian—B/M
Mortician—AA/B
Mycologist—D
Nutritionist—B
Occupational Therapist—B
Occupational Therapist
Assistant—AA
Paramedic—AA
Pathologist—D
Pharmacologist—D

Physical Therapist—B
Physical Therapy Assistant—AA
Physician—P
Physiologist—D
Psychologist—D
Public Health Director—B
Radiologic (x-ray) Technician—AA
Registered Nurse—AA/B
Respiratory Therapy
Technician—AA
Respiratory Therapist—AA
Taxonomist—B
Veterinarian—P
Zoologist—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Attendance at science exhibits, county and state fairs, 4-H shows, etc.; participation in Camp Fire Girls, Bluebirds, or scouting; membership in an environmental-concerns group, the Humane Society, a health club or community social group; browsing in floral shops or nature centers; working part-time or as a volunteer in a greenhouse or nursery; YMCA/YWCA

involvement; hiking, fishing, trapping, back-packing, or gardening; visiting zoos or museums; owning or caring for pets; reading science magazines, books, etc.; performing lab experiments, taking nature walks, bird watching; developing hobbies or collections around leaves, butterflies, trees, flowers, etc.

SOME RELATED SKILLS

Ability to concentrate for long periods of time
Ability to make critical observations and appropriate decisions
Proficiency in reading, writing, thinking, questioning, analyzing, and problem solving
Ability to operate scientific equipment
Intellectual capacity to perform well in most undergraduate or graduate college curriculums

Proficiency for accurate details
Ability to organize and maintain accurate records
Proficiency in critical speaking, and memorization
Ability to conduct and clearly explain scientific research
Good vision and manual dexterity
A thorough knowledge of basic biological theories and practices

Definitions for less familiar skill statements appear in Appendix B.

BIOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Creativity
Helping mankind
Intellectual growth
Life

Desire for preciseness
Enthusiasm for exploring
Spirit of scientific inquiry
Strong interest in living organisms
Diligence

Endurance
Like challenges
Patience
Perseverance

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Bioscience Departments and Faculties in the United States and Canada. Washington, DC: American Institute of Biological Sciences.

Janovy, John Jr. *On Becoming a Biologist.* New York: Harper & Row, 1985.

Martin, Gail M. "Science and Your Career." *Occupational Outlook Quarterly*, 26, 1983: 23-27.

Sindermann, Carl. *Joy of Science: Excellence and Its Rewards.* New York, NY: Plenum Press, 1985.

Winter, Charles A. *Opportunities in Biological Sciences.* Lincolnwood, IL: National Textbook, 1985.

SOME RELATED ORGANIZATIONS

American Institute of Biological
Sciences
730 11th Street, N.W.
Washington, D.C. 20001

American Society for Microbiology
1913 Eye Street, N.W.
Washington, D.C. 20006



I'M INTERESTED IN . . .

BOTANY

Botany is a major branch of the biological sciences and involves the study of plants. Plant groups which are usually included are bacteria, algae, fungi, mosses, ferns, conebearing and flowering plants. Botany focuses on plant growth, structure, function, classification, distribution, and reproduction.

Within the field of botany are a number of specialized areas of study which include morphology (microscopic and macroscopic plant structure); horticulture (the cultivation of ornamental plants and fruit and vegetable crops); and forestry. Plant habitat as well as the relationship of plants to humans and to our general environment are still other important areas of botanical study.

SOME RELATED OCCUPATIONS

Agronomist—B
Bacteriologist—B
Biochemist—B
Cooperative Extension Worker—B
Curator—B
Cytologist—B
Dietician—B
Ecologist—B
Educator—B/D
Farmer—V
Farm Manager—B/V
Florist—V
Food & Drug Inspector—B
Food Technologist—B

Forester—B
Forestry Technician—AA
Geneticist—B
Greenskeeper—V
Groundskeeper—V
Hydrologist—B
Laboratory Technician—AA
Landscape Gardener—V
Mycologist—D
Naturalist—B
Nursery Manager—V
Orchardist—V
Park Ranger—B
Nutritionist—B

Plant Breeder—B
Pathologist—D
Phycologist—B
Physiologist—D
Range Manager—AA/B
Seed Analyst—B
Silviculturist—B
Soil Conservationist—B
Tree Surgeon—V
Taxonomist—B
Virologist—B
Wood Technologist—B
Sanitation Engineer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Visiting nature centers, botanical gardens, conservatories, farms, parks, and museums; attending flower shows and fairs; browsing through floral shops, 4-H exhibits and science displays; hiking, exploring, camping, sightseeing, and nature photography; gardening, canning, and freezing; sailing, canoeing, and swimming; developing hobbies and collections around

flowers, leaves, house plants, or floral design; working part-time or as a volunteer in a greenhouse, nursery, state park or camp; joining a science club, orchid club, or conservation group; reading science publications; supporting or participating in natural resource-preservation efforts; undertaking nature studies or rural expeditions.

SOME RELATED SKILLS

Proficiency in observing, collecting and analyzing data
Physical stamina, good vision, and manual dexterity
Ability to concentrate for long periods of time
Proficiency in reading, writing, speaking, and memorization
Ability to conduct and clearly explain scientific research

Proficiency for accurate details
Intellectual ability to perform well in most undergraduate or graduate college curriculums
Proficiency in problem solving and decision making
Thorough knowledge of general biology

Definitions for less familiar skill statements appear in Appendix B.

BOTANY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Aesthetic awareness

Creativity

Independence

Intellectual growth

Interest in public health and safety

Fondness for outdoor activities

Deep appreciation for nature

"Green thumb"

Thoroughness

Perseverance

Patience

Curiosity

Endurance

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

American Phytopathological Society. "Careers In Plant Pathology." St. Paul: APS, n.d.

"Botanist." *Career Brief*. Largo, FL: Careers, 1983.

"Careers in Botany." Lexington, MA: Botanical Society of America.

Martin, Gail M. "Science and Your Career." *Occupational Outlook Quarterly*, 26, 1983: 23-27.

Winter, Charles A. *Opportunities in Biological Sciences*. Lincolnwood, IL: National Textbook, 1985.

SOME RELATED ORGANIZATIONS

Botanical Society of America

Biology Department

Bloomington, Indiana 47405

American Society for Horticultural Science

701 N. St. Asaph Street

Alexandria, VA 22314

American Orchid Society

6000 S. Olive Avenue

West Palm Beach, FL 33405



I'M INTERESTED IN . . .

BUSINESS ADMINISTRATION and MANAGEMENT

The field of business administration and management involves the coordination, implementation, promotion, supervision and directing of

the activities of individuals, organizations and businesses. Effective techniques of business management constitute the backbone of strong economic, political and social systems at all levels. Study in this major

exposes students to methods of operation, coordination, sales and marketing, finance and budget, personnel, property and equipment management/maintenance and security. Other key areas of concentration are organization, leadership, planning, interpersonal communications, delegating, supervising community resources, employee organizations and policy making/implementation.

SOME RELATED OCCUPATIONS

Accountant—B
Administrative Aide—AA
Advertising Executive—B
Airport Manager—B
Bank President—B
Chamber of Commerce
President—B
Chief Executive Officer—B
City Manager—B
College Dean—D
Comptroller—B/M
Convention Manager—B
County Prosecutor—P

Data Base Manager—B
Department Store Manager—B
Director of Career Planning and
Placement—B/M
Director of Food Service—B
Director of Recreation—B
Economist—B/D
Editor—B
Hotel/Motel Manager—B/V
Manager Trainee—B
Military Officer—B
Mortician—AA/B
Personnel Manager—B

Politician—B
Production Superintendent—B
Public Relations Specialist—B
Purchasing Agent—B
Restaurant Manager—AA/V
Retail Manager—B
Sales Manager—B
School Administrator—B/D
Television Director—B
Traffic Manager—B
Urban Planner—B
Warehouse Manager—AA/V
YMCA/YWCA Director—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time in a local business, establishment; participating in oratory contests; writing, starting or managing a part-time business endeavor; assisting in the planning of a civic or social event; playing games of strategy, competition or achievement; attending lectures, workshops and conferences related to business

management; serving as a student aide in a college business department; participation in a management training program; serving as a volunteer in a social agency; member in a Junior Achievement Club or a professional business organization.

SOME RELATED SKILLS

Ability to clearly communicate ideas and concepts to others
Proficiency in reading, writing and speaking
Ability to solve problems and make appropriate decisions
Strong background in business, marketing and human relations
Proficiency in organizing, planning, coordinating and directing activities

Ability to inspire productivity and exact loyalty from others
Ability to respond spontaneously and work well under pressure
Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Aptitude for leadership
Proficiency in interpersonal communication

Definitions for less familiar skill statements appear in Appendix B.

BUSINESS ADMINISTRATION and MANAGEMENT

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Wealth
Prestige
Willingness to work over and
beyond expectations

Tend to be responsible, show
initiative and exercise patience
Leadership
Decisiveness

Resourceful
Diplomatic
Integrity
Ambitious

Definitions for less familiar terms and statements appear in Appendix C.

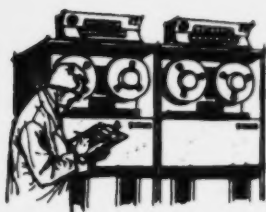
SOURCES FOR FURTHER EXPLORATION

- Bellas, Patricia H. *Your Career In the Business World: A Guide for Young Women*. New York: Arco, 1981.
- Career Associates. *Career Choices for Undergraduates Considering an M.B.A.* New York: Walker, 1985.
- Feingold, Norman. *Making It on Your Own*. Washington, DC: Acropolis, 1985.
- "Manager." *Career Brief*. Largo, FL: Careers, 1982.
- Oana, Katherine. *Women in Their Own Business*. Lincolnwood, IL: VGM Career Horizons, 1982.
- Place, Irene and Sylvia Plummer. *Women in Management*. Lincolnwood, IL: VGM Career Horizons, 1985.
- Stumpf, Stephen A. *Careers in Business*. New York: Simon and Schuster, Inc., 1984.

SOME RELATED ORGANIZATIONS

American Management Association
135 50th Street
New York, NY 10020

Association of M.B.A. Executives, Inc.
305 Madison Avenue
New York, NY 10165



I'M INTERESTED IN . . .

CHEMICAL ENGINEERING

Chemical engineering is the study of the practical application of science and mathematics in the process, manufacturing, equipment design and development related to raw and synthetic substances and energy in an economical and efficient manner. It entails involvement with pro-

ducts which affect nearly every aspect of life such as clothes, foods, fuels, drugs, plastics, glass, soaps, paints, paper, and much more. Areas of special concentrations include plastics, petroleum, research and development, environmental control, food, energy, pharmaceuticals, and education.

SOME RELATED OCCUPATIONS

Agricultural Engineer—B
Agronomist—B
Biochemist—B
Ceramic Engineer—B
Chemical Engineer—B
Chemical Engineering Technician—AA
Chemical Research Engineer—B/D
Chemist—B
Computer Science Engineer—B

Consulting Engineer—B
Dietitian—B
Electrical Engineer—B
Engineering Educator—B
Environmental Engineer—B
Fire Protection Engineer—B
Food Technologist—B
Geological Engineer—B
Materials Engineer—B
Metallurgical Engineer—B

Metallurgist—B
Nuclear Engineer—B
Petroleum Engineer—B
Pharmacist—B
Pharmacologist—D
Plastics Engineer—B
Safety Engineer—D
Sales Engineer—B
Textile Engineer—B
Toxicologist—B/D

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Performing lab experiments and doing science projects; attending science fairs, exhibits and demonstrations, reading publications related to chemistry or engineering; working part-time or as a volunteer in a

hospital, chemistry lab, engineering firm, department or pharmaceutical firm; joining a chemistry or engineering club or organization.

SOME RELATED SKILLS

High proficiency in mathematics and physical sciences
Ability to analyze, organize and interpret scientific data
Ability to work well with others
Ability to make keen observations and sound judgments
Aptitude for accurate details, spatial perception and abstract reasoning
Sensitive to economic considerations and human needs

Proficiency in one's area of specialization and knowledgeable of current practices and trends
Able to conduct and clearly communicate scientific research
Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Ability to operate and use information derived from computers

Definitions for less familiar skill statements appear in Appendix B.

CHEMICAL ENGINEERING

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity
Achievement
Knowledge
Desire to help others live better

Sensitive to the health and safety
of others
Like to see ideas developed into
practical use
Curiosity

Integrity
Perseverance
Responsibility
Imagination

Definitions for less familiar terms and statements appear in Appendix C

SOURCES FOR FURTHER EXPLORATION

"Chemical Engineer." *Career Brief*. Largo, FL: Careers, 1983.

"Engineering." *The World Book Encyclopedia*. 1985 ed.

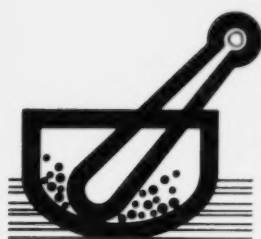
Hagerty, Joseph, Earl Gerhard, and Charles Plank. *Opportunities in Chemical Engineering*. Lincolnwood, IL: VGM Career Horizons, 1979.

What's It Like to be an Engineer? Fairfield, CT: General Electric Company, 1983.

SOME RELATED ORGANIZATIONS

National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314

American Institute of Chemical Engineers
345 East 49th Street
New York, NY 10017



I'M INTERESTED IN ... CHEMISTRY

Chemistry is a major branch of the physical sciences and involves the study of substances and energy. It focuses on their composition, characteristics,

changes, reactions, uses, and their benefits and dangers to mankind. Major subbranches within chem-

istry include inorganic and organic chemistry, analytical chemistry, applied chemistry, bio-chemistry, and physical chemistry. Chemistry is used to produce food, clothing, furniture, drugs, plastics, glass, paper, and electronic devices. Knowledge of chemistry is crucial to environmental protection efforts as well as to mankind's health and safety.

SOME RELATED OCCUPATIONS

Agronomist—B
Anesthesiologist—D
Astronomer—D
Biochemist—B
Ceramic Engineer—B
Chemical Engineer—B
Chemist—B/D
Consumer Protection Specialist—B
Dentist—P
Dietitian—B
Educator—B/D
Environmentalist—B

Food & Drug Analyst—B
Food Technologist—B
Geneticist—B
Geologist—B
Geophysicist—B
Hospital Administrator—B/M
Industrial Health Engineer—B
Internist—P
Laboratory Analyst—B
Mathematician—B
Metallurgist—B
Nuclear Scientist—B/D

Nutritionist—B
Patent Examiner—B/P
Petroleum Engineer—B
Pharmacist—B
Pharmacologist—D
Pharmacologist Sales Rep.—B
Physicist—B/D
Sanitarian—B
Technical Writer—B
Toxicologist—B/D
Wood Scientist—D

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Performing lab experiments and doing science projects; attending science fairs, exhibits, and demonstrations; reading chemistry and science-related journals; cooking, watching science TV programs; working

part-time or as a volunteer in a hospital, chemistry lab, pharmaceutical firm, etc.; joining a chemistry or science club.

SOME RELATED SKILLS

Good vision and manual dexterity
Ability to conduct and clearly explain scientific research
Aptitude for accurate details
Ability to organize, analyze and interpret scientific data
Strong mathematical background

Proficiency in reading, writing, speaking, and memorization
Ability to make critical observations and appropriate decisions
Intellectual capacity to perform well in most undergraduate or graduate college curriculums

Definitions for less familiar skill statements appear in Appendix B.

CHEMISTRY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Intellectual growth
Public recognition
Helping mankind
Willingness to take risks

Pleasure in learning new skills
Sensitivity to the health and safety
of others
Patience

Curiosity
Integrity
Flexibility
Responsibility

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Careers in Chemistry: Questions and Answers. Washington, DC: American Chemical Society.

"Chemist." *Career Brief*. Largo, FL: Careers, 1982.

Easton, Thomas. *Careers For Science*. Homewood, IL: Dow-Jones Irwin, 1984.

Futures Through Chemistry—Charting a Course. Washington, DC: American Chemical Society, 1985.

Hagerty, et al. *Opportunities in Chemical Engineering*. Lincolnwood, IL: VGM Career Horizons, 1979.

Woodburn, John. *Opportunities in Chemistry*. Lincolnwood, IL: VGM Career Horizons, 1979.

SOME RELATED ORGANIZATIONS

American Chemical Society
1155 16th Street, N.W.
Washington, D.C. 20036

Chemist's Club
52 E. 41st Street
New York, NY 10017



I'M INTERESTED IN . . .

CIVIL ENGINEERING

Civil engineering is the study of how mathematical and scientific knowledge, experience and theory is practically, economically and effi-

ciently applied in the use of material and natural resources to design and supervise the building of struc-

tures and facilities. Students are familiarized with the techniques of constructing bridges, dams, roads, railways, airports, water disposal systems, buildings, pipelines, etc. The four main areas of civil engineering are structures, transportation, sanitation and soils. Specialties include geotechnical, environmental, transportation, hydraulic, structural and pipeline engineering.

SOME RELATED OCCUPATIONS

Aerospace Engineer—B/D
Air Transport Engineer—B
Architect—B
Architectural Engineer—B
Civil Engineer—B
Civil Engineer Technician—AA
Construction Engineer—B
Consulting Engineer—B/M
Ecologist—B
Engineering Educator—B
Environmental Engineer—B

Geological Engineer—B
Geologist—B
Geotechnical Engineer—B
Highway Engineer—B
Hydraulics Engineer—B
Hydrologist—B
Industrial Engineer—B
Mechanical Engineer—B
Mining Engineer—B
Nuclear Engineer—B
Petroleum Engineer—B

Photogrammetrist—B
Pipeline Engineer—B
Public Works Engineer—B
Research Engineer—B/D
Safety Engineer—B
Sales Engineer—B
Sanitary Engineer—B
Structural Engineer—B
Transportation Engineer—B
Urban Planner—B/M

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participating in clubs or organizations which require you to make oral presentations and write reports; doing jigsaw puzzles and playing games of strategy; solving analytic and logic problems; reading publications related to civil engineering; member of a student or professional engineering organization; attending

engineering related lectures, workshops or conferences; engaging in hobbies related to building and designing structures; working part-time or as a volunteer with an engineering or construction firm or in a college engineering department.

SOME RELATED SKILLS

Ability to analyze, organize and interpret scientific data
Ability to work well with others
Able to make appropriate decisions and solve problems
Ability to make keen observations and sound judgments
Aptitude for accurate details
Proficiency in mathematics and science
Proficiency in spatial perception and abstract reasoning

Sensitive to economic considerations and human needs
Proficiency in one's area of specialization and knowledgeable of current practices and trends
Proficiency in written and oral communication
Able to conduct and clearly communicate scientific research
Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Able to operate and use information derived from computers

Definitions for less familiar skill statements appear in Appendix B.

CIVIL ENGINEERING

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity
Knowledge
Desire to help others live better
Achievement
Able to work on a team

Enjoy challenges
Like seeing ideas developed into practical uses
Imagination
Curiosity

Alertness
Flexibility
Patience
Responsible

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Engineering." *The World Book Encyclopedia*. 1985 ed.

Hagerty, Joseph D., and John E. Heer, Jr., *Opportunities in Civil Engineering*. Lincolnwood, IL: National Textbook, 1981.

Is Civil Engineering for You? New York: American Society of Civil Engineers.

What's It Like to be an Engineer? Fairfield, CT: General Electric Company, 1983.

SOME RELATED ORGANIZATIONS

American Society of Civil Engineers
345 E. 47th Street
New York, NY 10017

National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314



I'M INTERESTED IN . . .

COMMUNICATIONS

Communications is the branch of language arts which focuses on the comprehensive expression of sound, visual, oral, and written symbols. Study in communications is geared toward understanding the many ways human

beings develop, collect, disseminate and transfer information through symbols, particularly via the

mass media. Also included are the various ways in which communication serves to inform, persuade, entertain, and control. Communication is involved in almost everything humans do and ranges from the simplest non-verbal communication efforts to the complex electronic messages of intricate computers. Among the major areas of specialization are journalism, telecommunications, film, television, radio, and advertising.

SOME RELATED OCCUPATIONS

Account Executive—B
Actor/Actress—B/V
Advertising Worker—B
Announcer—AA/B
Arbitrator—B
Auctioneer—V
Audiologist—B
Audio Visual Librarian—B
Broadcast Technician—AA
Columnist—B
Commentator—B
Copywriter—B
Counselor—B/M
Disc Jockey—V

Editor—B
Educator—B/D
Flight Attendant—V
Foreign Correspondent—B
Graphic Artist—B
Journalist—B
Lawyer—P
Lecturer—B
Lobbyist—B
Market Research Analyst—B
Media Specialist—B
Music Director—B
News Photographer—AA/B

Paralegal Assistant—V
Political Scientist—B/D
Producer (film, TV)—B
Proofreader—V
Public Relations Specialist—B
Publisher—B
Receptionist—AA
Reporter—B
Research Library Technician—AA
Salesperson/Manager—B
Speech Writer—B
Technical Writer—B
Television Director—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participating in local theater productions; attending movies, stage productions, lectures, or readings; working part-time or as a volunteer for a radio or TV station, printing or publishing firm, department store or advertising agency; participation on a debate or forensic team; serving as an announcer or editor of a small newspaper, magazine or newsletter; joining a

yearbook staff or broadcasting or drama club; visiting libraries; competing in writing or oratory contests; fundraising; reading professional publications; participating in election campaigns; working as a student assistant in language arts or communications department; freelance writing.

SOME RELATED SKILLS

Ability to analyze, interpret, and appropriately convey physical and social events and behaviors to others
Ability to meet deadlines and work under pressure
Ability to read accurately and analytically
Ability to relate to people of varying backgrounds
Ability to respond quickly to unexpected circumstances

Ability to solve problems and make decisions
Background of general knowledge
Good listening, clarifying, questioning and responding skills
Comprehensive command of grammar
High proficiency in written and oral communication

Definitions for less familiar skill statements appear in Appendix B.

COMMUNICATIONS

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity
Desire for recognition and to
influence others
Independence
Intellectual growth

Poise and composure under close
public scrutiny and criticism
Appreciation for clear and stimulat-
ing communication
Pleasant and friendly attitude

Imagination
Integrity
Self-confidence
Tactfulness
Versatility

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

- Bone, Jan. *Opportunities in Telecommunications*. Lincolnwood, IL: VGM Career Horizons, 1984.
- Career Associates. *Career Choices for Students of Communications and Journalism*. New York: Walker, 1985.
- "Communication Occupations." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.
- "Communication." *The World Book Encyclopedia*. 1985 ed.
- Gould, Jay R. and Wayne A. Lowano. *Opportunities in Technical Communications*. Lincolnwood, IL: VGM Career Horizons, 1984.
- Noronha, Shonan. *Careers in Communications*. Lincolnwood, IL: VGM Career Horizons, 1987.
- Reed, Maxine K. and Robert M. Reed. *Career Opportunities in Television, Cable and Video*. New York: Facts On File, 1986.
- Weinstein, Bob. *Breaking into Communication*. New York: Arco, 1984.

SOME RELATED ORGANIZATIONS

International Communication Association
P.O. Box 9589
Austin, TX 78766

Women in Communications, Inc.
P.O. Box 9561
Austin, TX 78766



I'M INTERESTED IN . . .

COMPUTERS

Computer study focuses on the design, manufacture, application and effectiveness of computers, computer materials, and computer equipment. It

includes the management, analysis and dissemination of information via the computer. From tiny hand-held electronic gadgets to huge multi-cabinet computers

operated by many large organizations, computers pervade our culture and affect nearly every aspect of our daily lives. Computer study can be divided into the following categories: computer science (the micro-computer as a personal productivity tool) and data processing (functions performed and services provided by data processing centers).

SOME RELATED OCCUPATIONS

Chief Information Officer—B
Computer-Aided Designer—AA/B
Computer Applications Engineer—B
Computer Operator—AA/B
Computer Programmer—AA/B
Computer Service Technician—AA
Data Base Analyst—B
Data Base Manager—B
Data Control Clerk—V
Data-Entry Equipment Operator—AA
Data-Entry Manager—AA/B

Data Processing Department Manager—B
Electronic Data Processing Auditor—B
Electronic Data Processing Trainer—B
Educator—B/D
Electronics Engineer—B
Entrepreneur—B
Hardware Salesperson—AA/B
Hardware Service Person—AA/B
Magnetic Media Librarian—AA/B
Media Center Manager—B
Media Conversion Specialist—B

Operations Manager—AA/B
Procedures Analyst—B
Records Librarian—AA/B
Robotics Technician—AA
Software Package Developer—B
Software Package Marketer—B
Software Salesperson—AA/B
Statistician—B
Systems Analyst—B
Systems Consultant—B
Systems Manager—B
Technical Writer—B
Word Processor—AA

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working with a home or personal micro-computer; working part-time or as a volunteer in a computer firm or computer science department; repairing electronic appliances and other mechanical gadgetry; writ-

ing, scorekeeping or practicing electronics as a hobby; doing puzzles and playing games of strategy; solving analytic and logic problems; joining a computer club or organization; reading computer publications.

SOME RELATED SKILLS

Ability to cope with constant change
Ability to analyze, make appropriate decisions and solve problems
Ability to organize and think logically
Proficiency in writing and speaking
Aptitude for abstract reasoning, keen observation and intense concentration

Ability to work with others
Proficiency for accurate details
Background of computer language, equipment and applications programs
Ability to touch type
Computational ability (through algebra)
Ability to work under pressure

Definitions for less familiar skill statements appear in Appendix B.

COMPUTERS

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Skill
Continuous intellectual growth
Curiosity and enthusiasm for gadgetry

Sense of responsibility
Sensitive to multiple perspectives
Objectivity
Perseverance

Creativity
Patience
Thoroughness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

- AFIPS Press. *A Look Into Computer Careers*. Reston, VA: AFIPS, 1984.
- Allman, Paul. *Exploring Careers in Video*. New York: Rosen, 1985.
- Cardoza, Anne and Suzee Vlk. *Robotics Career Handbook*. New York: Arco, 1985.
- Career Associates. *Career Choices for Students of Computer Science*. New York: Walker and Company, 1985.
- Goldberg, Joan. *High-Tech Career Strategies for Women*. New York: Macmillan, 1984.
- Kling, Julie. *Opportunities in Computer Science*. Lincolnwood, IL: VGM Career Horizons, 1984.
- Lee, Mary and Richard S. Lee. *Exploring Careers in Robotics*. New York: Rosen, 1986.
- Marrs, Texe W. *High Technology Careers*. South Holland, IL: Irwin, 1986.
- Morgan, Richard. *Opportunities in Microelectronics Careers*. Lincolnwood, IL: VGM Career Horizons, 1985.
- Muller, Peter. *The Fast Track To the Top Jobs in Computer Careers*. New York: Putnam Publishing Group, 1983.
- Spencer, Donald. *Guide to Computer Careers*. New York: Free Press, 1985.
- Stone, Jack and Stephen Roberts. *You Don't Have to Be a Genius to Land a Computer Job*. New York: Bobbs-Merrill Co., 1984.
- Weinstein, Bob. *140 High-Tech Careers*. New York: Collier Books, 1985.

SOME RELATED ORGANIZATIONS

American Federation of Information Processing Societies
1899 Preston White Drive
Reston, VA 22091

American Society for Information Science
1424 Sixteenth Street, N.W., Suite 404
Washington, D.C. 20036

Association for Computer Professionals
230 Park Avenue
New York, NY 10169

Association for Women in Computing
407 Hillmoor Drive
Silver Spring, MD 20901



I'M INTERESTED IN . . .

CONSTRUCTION

Construction study concentrates on the building trades industry and involves learning about the structural, technical and finishing aspects of construction, renovation and maintenance on buildings, highways, industrial structures, systems and utilities installations.

Construction is a vast area and includes many specialties. A few of the many areas of specialization are masonry, carpentry, heavy equipment operation, plumbing, electricity, bricklaying, contracting, roofing, painting and insulation.

SOME RELATED OCCUPATIONS

Building Manager—AA/V
Bricklayer—V
Carpenter—V
Carpet Installer—V
Concrete Mason—V
Construction Engineer—B/V
Drywall Applicator—V
Electrician—V
Elevator Constructor—V
Estimator—AA/B
General Contractor—B/V

General Superintendent—B/V
Glazier—V
Insulation Worker—V
Iron Worker—V
Job Superintendent—B/V
Lather—V
Marblesetter—V
Operating Engineer—V
Painter—V
Paper Hanger—V
Pipefitter—V

Plasterer—V
Plumber—V
Project Manager—B/V
Rigger—V
Roofer—V
Safety Engineer—B
Sheet Metal Worker—V
Stone Mason—V
Terrazzo Worker—V
Tiler—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer worker with a construction firm, landscape gardening center, or on a farm or in various outdoor physical activities; building and repairing items as a hobby; reading manuals and books related to construction; engaging in outdoor

sports and games which involve physical stamina, strength and endurance; renovating and decorating one's own home or yard; member of an organization such as the scouts, 4-H, etc.

SOME RELATED SKILLS

Able to work in awkward positions and at times in dangerous situations
Physical stamina, good health, vision, and motor coordination
Mechanical and finger dexterity
Aptitude for accurate details
Proficiency in math
Ability to read and interpret blueprints, specifications, diagrams and schematic drawings

Ability to meet deadlines
Ability to make sound judgments, appropriate decisions and solve problems
Ability to follow direction and work alone as well as with others
General knowledge of building trade organizations, practices and trends
Thorough knowledge and ability in one's area of specialization

Definitions for less familiar skill statements appear in Appendix B.

CONSTRUCTION

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Skill	Willingness to work outdoors and in uncomfortable weather	Patience
Security	Able to adjust to hazardous environ- ments	Preciseness
Accomplishment	Enjoy "hands-on" activities	Courageous
Desire to make a vital contribution to society	Thoroughness	Resourceful
		Careful

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Construction. Washington, DC: Associated General Contractors of America.

"Construction and Extractive Occupations." *Occupational Outlook Handbook.* Washington, DC: U.S. Department of Labor, 1986-87.

Lobb, Charlotte. *Exploring Careers in Apprenticeship.* New York: Rosen, 1985.

Sheldon, Roger. *Opportunities in Carpentry.* Lincolnwood, IL: VGM Career Horizons, 1981.

Sumichrast, Michael. *Opportunities in Building Construction Trades.* Lincolnwood, IL: VGM Career Horizons, 1982.

SOME RELATED ORGANIZATIONS

Associated General Contractors of America, Inc.
1957 E Street, N.W.
Washington, D.C. 20006

National Association of Home Builders
15th and M Streets, N.W.
Washington, D.C. 20005



I'M INTERESTED IN . . .

CULINARY ARTS

Culinary arts is the art, science and business of cooking, baking and preparing foods and beverages of all types for public and private institutions, agen-

cies and eating establishments. It exposes the student to the practices and techniques of quantity and fine

food preparation and presentation, food storage, customer service, budgeting, purchasing, equipment use, recipe/menu development and use, sanitation, employee supervision, management and governmental regulations. A few of the major specialities are bakery, pastry, buffet catering, meat cookery, cold meat and seafood preparation; soups and stocks, salads, vegetables, fish and shellfish, and sauces.

SOME RELATED OCCUPATIONS

Assistant Cook—AA/V
Baker—AA/V
Breakfast Cook—AA/V
Broiler Cook—AA/V
Buffet Caterer—AA/V
Butcher—V
Caterer—AA/V
Chef—AA/V
Chef Garde Manager—B
Chemical Engineer—B
Coffee Maker—V
Cook—AA/V

Cook's Helper—V
Dietitian—B
Dinner Cook—V
Executive Chef—B/V
Food Service Supervisor—B/V
Food Technologist—B
Fry Cook—V
Kitchen Manager—V
Meatcutter—V
Nutritionist—B
Pantry Supervisor—V

Pastry Chef—AA/V
Pastry Cook—AA/V
Restaurant Owner—B
Salad Maker—V
Sandwich Maker—V
Saucier—V
Short-order Cook—V
Soup Cook—AA/V
Sous Chef—AA/V
Technical Food Writer—B
Vegetable Cook—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Attending lectures, clinics and workshops related to food preparation; working part-time or as a volunteer in a school or community cafeteria or restaurant; home or church baking, reading publications related to culinary arts; joining an organization such as the

American Culinary Federation; entering baking or food contests; attending conventions, trade shows or fairs which highlight culinary interests; engaging in one's own part-time food endeavor.

SOME RELATED SKILLS

Possess good motor skills, manual dexterity and eye-hand-foot coordination
Good health and vision
Ability to read and interpret recipes, menus, etc.
Ability to meet deadlines and work well under pressure
Ability to clearly communicate and understand others
Ability to see/feel differences between shapes, shading, colors and textures
Ability to work well alone and with others

Ability to adapt well to extreme temperature, noise and odor variations
Proficiency for accurate details
Ability to stand or sit in uncomfortable positions for extended periods of time
Ability to cope with frequent change and variety
Possess good mental and emotional well-being
Sense of taste, smell and touch
Ability to organize and coordinate activities

Definitions for less familiar skill statements appear in Appendix B.

CULINARY ARTS

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Desire for recognition and appreciation from others
Skill
Achievement
Creativity

Strong interest in cooking and baking
Tendency to maintain good health habits
Willing to work long and irregular hours and weekends

Dedication
Perseverance
Resourceful
Flexible
Tactful
Cleanliness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Careers in Foodservice." Pittsburgh, PA: National Institute for the Foodservice Industry.

Caprione, Carol Ann. *Opportunities in Food Services*. Lincolnwood, IL: VGM Career Horizons, 1985.

Cavallaro, Ann. *Careers in Food Services*. New York: Elsevier/Nelson Books, 1981.

"Cook and Chefs." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1984.

"Cooks and Chefs." *Career Brief*. Largo, FL: Careers, 1982.

SOME RELATED ORGANIZATIONS

Culinary Institute of America
P.O. Box 53
Hyde Park, NY 12538

American Culinary Federation
P.O. Box 3466
St. Augustine, FL 32084

National Institute for the Foodservice Industry
20 N. Wacker Drive
Chicago, IL 60606



I'M INTERESTED IN . . .

ECONOMICS

Economics is the study of the production, consumption, and distribution of goods and services. Economic study attempts to clarify how the use of natural, technological, and financial resources affects the lives of human beings. Economic concerns can range from the study of how a poor Appalachian

family survives financially to the complex study of international trade laws between countries. Topics of specialization are many and include the study of energy costs, business cycles, employment and unemployment, housing, health care, money policies, taxation, labor contracts, agriculture and international trade.

SOME RELATED OCCUPATIONS

Accountant—B
Account Executive—B
Actuary—B
Auditor—B
Bank Officer—AA/B
Buyer—B
City Manager—B
Controller—B
Credit and Loan Worker—AA
Data Processing Manager—B
Economist—B/D
Educator—B/D
Entrepreneur—B

Financial Planner—B
Foreign Service Officer—B
Geographer—B
Historian—B/D
Home Economist—B
Insurance Agent—AA
Internal Revenue Agent—B
Labor Relations Specialist—B
Manpower Director—B
Market Research Analyst—B
Personnel Manager—B
Political Scientist—B/D
Real Estate Agent—V

Sales Manager—B
Sales Representative—AA
Securities Analyst—B
Sociologist—B/D
Statistician—B
Stockbroker—B
Systems Analyst—B
Tax Preparer—AA
Technical Writer—B
Trust Officer—B
Underwriter—B
Urban Planner—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working as a part-time or volunteer cashier, treasurer, pollster, or salesperson; joining an international club or Junior Achievement group; participating in fund-raising events; joining a professional economics organization, reading economics-related publications; join-

ing an investment club; solving budgetary problems; bartering; writing reports or serving as a research assistant or student aide in an economics department; running a part-time business; joining a financial advisory board.

SOME RELATED SKILLS

Ability to conduct and clearly explain scientific research
High proficiency in written and oral communication
Strong background in economic theory and econometrics
Ability to explain complex concepts and theories to others
Thorough knowledge of statistical procedures
Ability to collect and organize data

Ability for accurate details
Ability to observe keenly and make appropriate decisions
Ability to solve problems and make sound predictions
Intellectual capacity to do well in most undergraduate or graduate college curriculums
Ability to operate and use information derived from computers

Definitions for less familiar skill statements appear in Appendix B.

ECONOMICS

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Intellectual growth
Security
Ability to adjust to frequent changes
Fondness for research and detail

Interest in economic and fiscal trends
Dependability
Patience

Objectivity
Resourcefulness
Perseverance
Curiosity

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Business Economics Careers. Cleveland, OH: National Association of Business Economists.

Career Associates. *Career Choices for Students of Economics.* New York: Walker, 1985.

"Economist." *Career Brief.* Largo, FL: Careers, 1980.

"Economists." *Occupational Outlook Handbook.* Washington, DC: U.S. Department of Labor, 1986-87.

SOME RELATED ORGANIZATIONS

American Economic Association
1313 21st Avenue, S.
Nashville, Tennessee 37212

Foundation for Economic Education
30 S. Broadway
Irvington, NY 10533

National Economist Club
P.O. Box 19381
Washington, D.C. 20036



I'M INTERESTED IN . . .

EDUCATION

Education is the study of how human beings teach, learn and develop knowledge, values, skills, and character qualities. The survival and success of societies, groups and individuals hinges on effective education. Education takes place, either formally or informally, from the time one is born until the moment he or she dies. Study in this field is virtually unlimited and can include infant care, child psy-

chology and adolescent education, preschool, elementary and secondary education, adult and parent education, education of the elderly, education of those who are handicapped and disadvantaged, military and employee education and so on. A few of the major specializations are elementary, secondary, higher, adult and continuing, special, educational administration and supervision, preschool, guidance and counseling, testing and evaluation, business, industrial arts and vocational/technical.

SOME RELATED OCCUPATIONS

Adult Education Teacher—B/M
Agricultural Extension Agent—B
Assistant Principal—B/M
Business Education Teacher—B
Camp Counselor—V
Career Placement Director—B/M
Christian Education Worker—B/P
College Dean—B/D
College President—B/D
College Teacher—B/D
Counselor—B/M
Curriculum Supervisor—B/M
Director of Admissions—B

Director of Guidance—B/D
Director of School Divisions—B
Director of Student Affairs—B
Education Consultant—B/D
Elementary Teacher—B/M
Financial Aid Director—B/M
4-H Agent—B
Librarian—B/M
Peace Corps/VISTA Volunteer—B
Personnel Director—B
Politician—B
Preschool Teacher—B
Principal—B/M

Registrar—B/M
School Psychologist—B/D
School Social Worker—B/M
School Superintendent—B/D
Secondary Teacher—B/M
Special Education Teacher—B/M
Speech Pathologist—B/M
Textbook Writer—B
Tutor—B
Vocational Rehabilitation
Counselor—B/M
Vocational/Technical Teacher—B
YMCA/YWCA Worker—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer in a pre-school, nursery, elementary or secondary school; participating on a debate or forensic team, in oratory contests or in a student organization; playing team sports and participating in community service organizations; serving as a Sunday School, Children's Church or Vacation

Bible School teacher; reading educational publications; attending lectures, workshops or conventions related to education; helping to organize and plan social or political events; working part-time or as a volunteer peer counselor, tutor, 4-H or scout leader.

SOME RELATED SKILLS

Ability to persuade and influence others
Proficiency in interpersonal communications
Intellectual capacity to perform well in most undergraduate or graduate curriculums
Broad background of knowledge
Ability to organize and maintain accurate records
Proficiency in one or more specialized areas
Ability to solve problems and make appropriate decisions

Aptitude for leadership
Ability to maintain composure in stressful situations
Understanding of educational theories and practices
Ability to communicate ideas, facts and abstract concepts to others
Able to relate to and interact with people of differing personalities and backgrounds

Definitions for less familiar skill statements appear in Appendix B.

EDUCATION

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Helping others to learn and succeed
Achievement
Recognition and appreciation from others
Intellectual growth
Enjoy working and being with people

Fondness for and dedication to human potential
Sensitive, warm, and friendly attitude
Thirst for knowledge and understanding
Patience

Endurance
Integrity
Enthusiasm
Tactfulness
Objectivity
Kindness

Definitions for less familiar terms and statements appear in Appendix C.

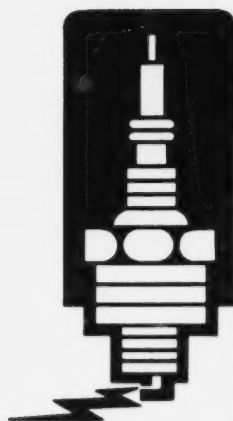
SOURCES FOR FURTHER EXPLORATION

- Beard, Marna and Michael McGahey. *Alternative Careers for Teachers*. New York: Arco, 1985.
- Fine, Janet. *Opportunities in Teaching Careers*. Lincolnwood, IL: VGM Career Horizons, 1977.
- Goodman, Leonard. *Alternative Careers for Teachers, Librarians, and Counselors*. New York: Simon and Schuster, 1982.
- Ispa, Jean. *Exploring Careers in Child Care Services*. New York: Rosen, 1984.
- "Teachers, Librarians, and Counselors." Washington, DC: U.S. Department of Labor, 1984.
- Ward, Cecelia B. et al. *Career With Young Children: Making Your Decision*. Washington, DC: National Association for the Education of Young Children, 1984.
- Wittenberg, Renee. *Opportunities in Child Care Careers*. Lincolnwood, IL: VGM Career Horizons, 1986.

SOME RELATED ORGANIZATIONS

American Federation of Teachers
11 Dupont Circle, N.W.
Washington, D.C. 20065

U.S. Department of Education
Center for Statistics
400 Maryland Avenue, S.W.
Washington, D.C. 20202



I'M INTERESTED IN . . .

ELECTRICAL/ELECTRONIC ENGINEERING

Electrical/electronic engineering is the study of the practical application of mathematics and science in the production, control, distribution and uses of electricity as well as the research, design, development, testing and supervision of the manufacture of electronic equipment in both an economical and efficient manner.

Electrical/electronic engineering is an extremely large branch of engineering and ranges from the design of tiny electrical circuits to the construction of large electrical power plants. The four major branches of electrical engineering are communications, control systems, electronics and power. Students may elect to concentrate in the areas of electronic controls, radio, electromechanics, machine design, and construction.

SOME RELATED OCCUPATIONS

Acoustical Engineer—B
Aeronautical Engineer—B/D
Agricultural Engineer—B
Biomedical Engineer—B
Circuit Engineer—B
Civil Engineer—B
Communications Engineer—B
Computer Science Engineer—B
Consulting Engineer—B
Control Engineer—B

Electronics Instructor—B
Electrical Engineer—B
Electrical Engineering Technician—AA
Electrician—V
Engineering Educator—B/D
Environmental Engineer—B
Field Service Engineer—B
Fire Protection Engineer—B
Illuminating Engineer—B

Mechanical Engineer—B
Nuclear Engineer—B
Physicist—B/D
Radio Engineer—B
Safety Engineer—B
Sales Engineer—B
Technical Writer—B
Transmissions Engineer—B
Videotape-Recording Engineer—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Reading publications related to electricity and engineering; attending lectures and conferences related to engineering, repairing electrical items around the house; developing hobbies and interests around electronic games and equipment, building models; member of a club or organization related to electrical

engineering; working part-time or as a volunteer in an electronics shop, electrical firm, radio/TV repair shop or in a college engineering department; participating in clubs or organizations which require you to make oral presentations and write reports.

SOME RELATED SKILLS

Ability to operate and use information derived from computers
Proficiency in mathematics and physical sciences
Ability to analyze, organize and interpret scientific data
Ability to work well with others
Ability to make keen observations and sound judgments
Aptitude for accurate details, spatial perception and abstract reasoning

Sensitive to economic considerations and human needs
Proficiency in one's area of specialization and knowledgeable of current practices and trends
Able to conduct and clearly communicate scientific research
Intellectual capacity to perform well in most undergraduate college curriculums

Definitions for less familiar skill statements appear in Appendix B.

ELECTRICAL/ELECTRONIC ENGINEERING

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Creativity
Knowledge
Desire to help others live better
Like challenges

Enthusiasm for developing ideas and
concepts in a practical way
Imagination
Dependable

Patience
Perseverance
Conscientious
Curiosity

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Engineering." *The World Book Encyclopedia*. 1985 ed.

Reyes-Guerra, David R., and Alan M. Fischer. *Peterson's Guide to Undergraduate Engineering Study*. Princeton: Peterson's Guides, 1981.

Shackleton, S. Paul. *Opportunities in Electronic and Electrical Engineering*. Lincolnwood, IL: VGM Career Horizons, 1982.

What's It Like to be an Engineer? Fairfield, CT: General Electric Company, 1983.

SOME RELATED ORGANIZATIONS

Institute of Electrical and Electronic Engineers
248 E. 47th Street
New York, NY 10017

National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314



I'M INTERESTED IN . . .

ELECTRICAL/ELECTRONICS TECHNOLOGY

Electrical and electronics technology is the application of scientific theories and principles in the design, production, installation, testing, service, use and control of electrical and electronic parts, equipment and systems. Students in this area are exposed to theory and history, applied mathematics, testing measurement, circuitry,

construction, currents and voltage, safety, pneumatics and electronic instruments, instrumentation, maintenance and repairing and much more. Specialties in this area are many and include instrumentation, construction electricity, robotics, broadcast communications, industrial electronics, radio/television, radar, automated equipment, and digital technology.

SOME RELATED OCCUPATIONS

Aircraft Electronics Technician—AA
Audio and Sound Specialist—AA
Automated Equipment Technician—AA
Broadcast Technician—AA
Computer Technician—AA
Digital Computer Technician—AA
Electrical Appliance Repairer—V

Electrical Engineering Technician—AA
Electrical Technician—AA
Electronics Instructor—B
Electronic Systems Tester—AA
Electronics Technician—AA
Guided Missile Technician—AA
Industrial Electronics Maintenance Worker—AA
Instrumentation Technician—AA

Marine Electronics Specialist—AA
Photo-Optics Technician—AA
Radar Technician—AA
Radio and Electrical Inspector—B
Radio Repairer—V
Remote Control Technician—V
Robotics Technician—AA
Technical Writer—B
Television Technician—AA

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Reading publications related to electricity or electronics; repairing electrical items around the house; developing hobbies and interests around electronic games and equipment; building models; member of an elec-

tronics club or related organization; working part-time or as a volunteer in an electronics shop, electrical firm or radio/TV repair shop.

SOME RELATED SKILLS

Ability to understand and apply scientific theories and principles
Ability to read, interpret and follow directions, schematic drawings, diagrams, blueprints, etc.
Eye-hand coordination
Aptitude for precise accurate detail
Ability to concentrate intensely and work alone for long periods of time

Able to make keen observations and solve problems
Spatial perception and color coordination
Finger and manual dexterity
Aptitude for working with electricity and mechanics
Proficiency in mathematics and physical science
Ability to analyze, make sound judgments and make appropriate decisions

Definitions for less familiar skill statements appear in Appendix B.

ELECTRICAL/ELECTRONICS TECHNOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Independence
Wisdom
Achievement
Skill
Enjoy "hands-on" work related to electrical gadgetry

Enthusiasm for learning and applying new methods and techniques
Patience
Resourcefulness

Conscientious
Competent
Thorough
Dependable

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Electrical Engineering Technician." *Career Summary*. Largo, FL: Careers, 1980.

The IBEW Leads to Electrifying Careers. Washington, DC: International Brotherhood of Electrical Workers.

Heer, John and Joseph Hagerty. *Opportunities in Engineering Technology*. Lincolnwood, IL: VGM Career Horizons, 1984.

Wood, Robert. *Opportunities in Electrical Trades*. Lincolnwood, IL: VGM Career Horizons, 1982.

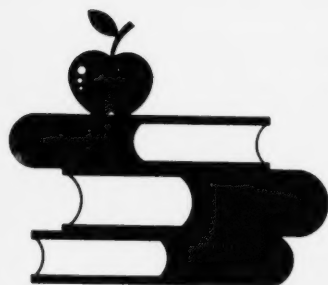
SOME RELATED ORGANIZATIONS

American Electronics Association
2670 Hanover Street
Palo Alto, CA 94303

Electronics Technicians Association, International
825 E. Franklin Street
Greencastle, IN 46135

International Brotherhood of Electrical Workers
1125 15th Street, N.W.
Washington, D.C. 20005

International Union of Electronic, Electrical, Technical,
Salaried and Machine Workers
1126 16th Street, N.W.
Washington, D.C. 20036



I'M INTERESTED IN . . . ENGLISH

English is a major branch of the language arts and its main focus is on the written word. However, a broader, more commonly

accepted definition would include the study of literature, speech and writing, in all forms; the study of English orients students to the discipline of thinking. Students learn to read and listen to their own speaking

and writing, to evaluate the speaking and writing of others critically and to express their ideas and sentiments coherently. They also study how to revise to accommodate the needs of various audiences. The appropriate use and understanding of English is considered basic to the American way of life and reflects a person's level of educational achievement. A few of the specialized areas within English are writing, literature, reading, and speech.

SOME RELATED OCCUPATIONS

Actor/Actress—B/V
Advertising Worker—B
Announcer (radio, TV)—B
Archivist—B
Author—B
Bibliographer—B
Biographer—B
Bookstore Manager—B
Columnist—B
Court Reporter—AA
Disc Jockey—AA
Editor—B
Education—B/D
Freelance Writer—B

Humorist—B
Interpreter/Translator—B
Journalist—B
Lawyer—D
Lexicographer—B
Librarian—B/M
Library Technical Assistant—AA
Lobbyist—B
Market Research Analyst—B
Media Specialist—B
Narrator—B
Paralegal Assistant—AA
Personnel Manager—B

Playwright—B
Proofreader—V
Public Relations Director—B
Publisher—B
Reading Specialist/Consultant—B
Receptionist—V
Researcher (opinion poll, fact checking)—B
Reporter—B
Secretary—AA
Speech Pathologist—B/M
Speech Writer—B
Technical Writer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participating in local theatre productions; attending movies, plays, lectures or readings; free lance writing; providing a typing, tutoring, resume, or editing service; writing reports, papers, or poems; participating in conversation with others; participating on a debate or forensics team, or in practical politics; serving as editor or reporter for a small newspaper or newsletter;

joining a yearbook staff; participating in a book club; visiting libraries; working part-time or as a volunteer for a high school or college radio or TV station; competing in writing or oratory contests; reading essays, articles, novels, short stories, drama, poetry, and professional journals.

SOME RELATED SKILLS

Background of general knowledge
High proficiency in reading, writing and speaking
Comprehensive command of grammar and vocabulary
Good listening, clarifying, questioning, and responding skills
Ability to conduct and clearly explain research results

Ability to read articulately and analytically
Capacity to work well under pressure
Ability to make critical observations and appropriate decisions
Ability to concentrate for long periods of time

Definitions for less familiar skill statements appear in Appendix B.

ENGLISH

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Intellectual growth
Independence
Creativity
Desire for recognition and to influence others

Willingness to work toward a deadline
Fondness for writing and/or speaking

Self-discipline
Tactfulness
Integrity
Imagination

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

- Career Associates. *Career Choices for Students of English*. New York: Walker, 1985.
- Casewit, Curtis. *Freelance Writing: Advice from the Pros*. New York: Collier, 1985.
- Guiley, Rosemary. *Career Opportunities for Writers*. New York: Facts on File, 1985.
- Martin, Gail M. "English and Your Career." *Occupational Outlook Quarterly*, 27, 1983: 23-25.
- Munschauer, John L. *Jobs for English Majors and Other Smart People*. Princeton, NJ: Peterson's Guides, 1986.
- Pattis, S. William. *Opportunities in Magazine Publishing Careers*. Lincolnwood, IL: VGM Career Horizons, 1985.
- Scherman, William H. *How to Get the Right Job in Publishing*. Chicago: Contemporary Book Inc., 1983.

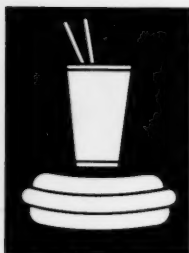
SOME RELATED ORGANIZATIONS

American Society of Magazine Editors
575 Lexington Avenue
New York, NY 10022

The Dow Jones Newspaper Fund
P.O. Box 300
Princeton, NJ 08540

National Council of Teachers of English
1111 Kenyon Road
Urbana, IL 61801

National Writers Club
1450 Havana, Suite 620
Aurora, CO 80012



I'M INTERESTED IN . . .

FOOD and BEVERAGE MANAGEMENT/SERVICE

Food and beverage management/service can be described as the art and business of managing and providing food services of all types for public and private institutions, agencies and eating establishments. It includes the

study of techniques in hospitality, hotel and restaurant maintenance, facilities, food purchasing and cost, food preparation and service, and front office operations. Other key areas of focus are marketing, sanitation and safety, menu and nutrition, catering and financial record keeping.

SOME RELATED OCCUPATIONS

Assistant Restaurant Manager—AA/V
Banquet Manager—AA/V
Busboy/Busgirl—V
Cafeteria Manager—AA/V
Cashier—V
Catering Manager—AA/V
Chef—AA/V
Dietitian—B
Dining Room Attendant—V
Director of Recipe—V

Executive Housekeeper—B
Food and Beverage Director—V
Food Counter Worker—V
Food Production Manager—V
Foodservice Supervisor—V
Food Technologist—B
Home Economist—B
Host/Hostess—V
Hotel/Motel Manager—B
Maitre D'Hotel—V

Menu Planner—V
Merchandising Supervisor—V
Nutritionist—B
Purchasing Agent—B
Restaurant Manager—AA/B
Sanitarian—B
Sanitation/Maintenance Worker—AA
Steward/Stewardess—V
Storeroom Supervisor—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Joining an organization such as the National Restaurant Association; working part-time or as a volunteer in a restaurant, or hotel; planning or organizing community events which involve eating and/or serving, engaging in one's own part-time food business endeavor; helping to organize, plan and implement

church or school picnics; reading publications related to food service or management; working part-time or as a volunteer store cashier or manager; attending workshops, lectures or conferences related to food service; hosting social events.

SOME RELATED SKILLS

Ability to solve problems and make appropriate decisions
Aptitude for accurate details
Ability to follow directions, read and interpret menus
Able to work under pressure, maintain composure and react spontaneously
Ability to organize and coordinate activities
Proficiency in interpersonal communication

Ability to accept public scrutiny and criticism
Ability to interact with people of differing backgrounds and personalities
Good health and vision
Ability to work well with others
Possess good motor skills, manual dexterity and eye-hand-foot coordination

Definitions for less familiar skill statements appear in Appendix B.

FOOD and BEVERAGE MANAGEMENT/SERVICE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Recognition and appreciation from others
Helping others
Creativity
Achievement
Pleasant and friendly personality

Desire to serve and please others
Willingness to work long and irregular hours and weekends
Sensitivity, poise and integrity
Persuasive

Neat
Diplomatic
Cleanliness
Leadership
Industrious

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Caprione, Carol Ann. *Opportunities in Food Services*. Lincolnwood, IL: VGM Career Horizons, 1985.

"Careers in Foodservice." Chicago: National Institute for the Foodservice Industry.

Cavallaro, Ann. *Careers in Food Services*. New York: Elsevier/Nelson Books, 1981.

"Food and Beverage Preparation and Service Occupations." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.

"Food Service Supervisor." *Career Summary*. Largo, FL: Careers, 1983.

SOME RELATED ORGANIZATIONS

National Restaurant Association
Information Service and Library
311 First Street, N.W.
Washington, D.C. 20001

National Institute for the Foodservice Industry
20 North Wacker Drive
Chicago, IL 60606



I'M INTERESTED IN . . .

FOREIGN LANGUAGE

Foreign language is a branch of the language arts that involves the study of languages other than

one's native tongue. Studies in a foreign language seek to improve the ability to communicate, to develop cultural awareness and sensitivity, to expand general

knowledge and to promote more appreciation and tolerance for other cultures. Proficiency in more than one language is becoming an increasingly valuable acquisition and enhances the student's occupational possibilities as well as enjoyment when traveling. Foreign language courses are offered in most schools, colleges, and universities in the United States.

SOME RELATED OCCUPATIONS

Actor/Actress—B/V
Announcer—B
Anthropologist—B/D
Audiologist—B
Bilingual Educator—B/M
Bilingual Secretary—V
Buyer—B
Civil Service Worker—B
Copy Editor—B
Customs Inspector—AA
Diplomat—B/M
FBI/CIA Agent—B/D
Film Editor—AA

Flight Attendant—AA
Foreign Language Teacher—B/M
Foreign News Correspondent—B
Foreign Service Officer—B
Historian—B/D
Hotel Information Clerk—V
Hotel Manager—AA/B
Import/Export Clerk—V
Interpreter—B
Journalist—B
Lawyer—P
Lexicographer—B
Librarian—B/M

Maitre'd (hotel)—AA/V
Missionary—B
Producer—B
Proofreader—V
Public Health Administrator—B
Social Worker—B/M
Speech Pathologist—B/M
Technical Writer—B
Textbook Publisher—B
Translator—B
Travel Agent—AA
VISTA/Peace Corps Volunteer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Traveling abroad; attending movies or participating in stage productions; visiting libraries; attending lectures and readings; working part-time or as a volunteer for Peace Corps, VISTA, or Red Cross International; joining a foreign language club; participating in oratory contests, student exchanges, or pen-pal ex-

periences; working part-time or as a volunteer news announcer for a local radio or TV station, in a foreign language department, or in an ethnic restaurant; joining an international service organization such as the American Friends Service Committee or World Vision.

SOME RELATED SKILLS

Ability to think logically and make analogies
Ability to practice for long periods of time
Ability to adjust to new environments
Ability to organize and memorize detailed information
Background of general knowledge

Comprehensive command of grammar and vocabulary
Good listening, clarifying, and responding skills
High proficiency in reading, speaking, and writing
Proficiency in phonetics and ability to imitate sounds

Definitions for less familiar skill statements appear in Appendix B.

FOREIGN LANGUAGE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Intellectual growth
Appreciation for the culture and
life-styles of others
Desire for peace and harmony

Linguistic ability
Adaptability
Alertness

Creativity
Patience
Self-discipline

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

- Bourgoin, Edward. *Foreign Languages and Your Career*. Washington, DC: Columbia Language Services, 1981.
- Casewit, Curtis. *Foreign Jobs: The Most Popular Countries*. New York: Simon and Schuster, 1984.
- Casewit, Curtis. *How to Get a Job Overseas*. New York: Arco, 1984.
- Cohen, Majorie. *Work, Study, Travel Abroad: The Whole World Handbook*. New York: St. Martins, 1986.
- Edwards, E. W. *Exploring Careers Using Foreign Language*. New York: Rosen, 1986.
- Griffith, Susan. *Work Your Way Around the World*. Cincinnati: Writer's Digest Books, 1983.
- Honig, Lucille, J., and Richard I. Brod. *Foreign Languages and Careers*. New York: Modern Language Association, n.d.
- Huevener, Theodore. *Opportunities in Foreign Language Careers*. Lincolnwood, IL: VGM Career Horizons, 1983.

SOME RELATED ORGANIZATIONS

Modern Language Association of America
10 Astor Place
New York, NY 10003

Association of Departments of Foreign Languages
10 Astor Place
New York, NY 10003

American Institute for Foreign Study
102 Greenwich Avenue
Greenwich, CT 06830



I'M INTERESTED IN . . .

FORESTRY

Forestry is concerned with the management, development and use of forests and related areas. It involves the application of scientific methods as well as creative imagination. Forestry

covers a broad spectrum and includes the care and maintenance of rangelands, grasslands and brushlands. Study in this field includes wood science, forestry management, economics and conservation; fire

protection and disease control; scaling, surveying, recreational uses, research and a number of other areas. Forestry overlaps into a number of fields including biology, physics, chemistry and engineering. Among the many specializations are tree planting/harvesting, watershed management, wildlife management, forestry management, public recreation, fire-control, disease and pest control, conservation, and wood science.

SOME RELATED OCCUPATIONS

Agricultural Extension Worker—B
Agronomist—B
Botanist—B
Civil Engineer—B
Ecologist—B
Educator—B/D
Farm Manager—B/V
Forester—B
Forester Technician—AA
Geologist—B
Hydrologist—B
Land Planner—B
Landscape Architect—B

Mycologist—D
Naturalist—B
Orchardist—V
Park Aide—V
Park Police—AA/V
Park Ranger—B
Park Technician—AA
Physical Science Technician—AA
Plant Geneticist—B
Plant Pathologist—D
Plant Physiologist—D
Rancher—V

Range Manager—AA/B
Seed Analyst—B
Silviculturist—B
Smoke Jumper/Firefighter—V
Soil Conservationist—B
Surveyor—AA
Taxonomist—B
Tree Nursery Manager—V
Tree Surgeon—V
Wildlife Manager—B
Wood Technologist—B
Virologist—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Visiting nature centers, botanical gardens, state and national parks, conservatories, camps and museums; hiking, exploring, camping, sightseeing, backpacking and collecting items related to nature; joining a professional organization such as the society of American Foresters; subscribing to a science publication such as

the *Journal of Forestry*; joining a forestry club or conservation group; supporting or participating in natural resource preservation efforts; undertaking nature studies or rural expeditions; working part-time or as a volunteer park aide, forest aide, nursery worker or nature tour guide.

SOME RELATED SKILLS

Physical stamina, good vision and manual dexterity
Ability to work alone and with little supervision
Ability to conduct and clearly explain scientific research
Ability to communicate well with others
Proficiency in reading, writing, speaking and memorization

Ability to supervise and manage people and activities
Intellectual ability to perform well in most undergraduate or graduate college curriculums
Thorough knowledge of forestry and related areas
Proficiency in problem solving and decision making.

Definitions for less familiar skill statements appear in Appendix B.

FORESTRY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Independence
Aesthetic awareness
Helping mankind
Intellectual growth
Creativity
Fondness for outdoor activities

Desire to conserve and protect the
natural environment
Able to endure sometimes unpleasant
physical conditions
Appreciation of nature

Perseverance
Like challenges
Curiosity
Responsible
Courage

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Fanning, Odom. *Opportunities in Environmental Careers*. Lincolnwood, IL: VGM Career Horizons, 1986.

"Forester." *Career Brief*. Largo, FL: Careers, 1986.

"Foresters and Conservation Scientists." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.

Hardigree, Peggy. *Working Outside: A Career and Self-Employment Handbook*. New York: Crown, 1980.

Hawes, Gene R. and Douglass L. Brownstone. *The Outdoor Careers Guide*. New York: Facts on File, 1986.

Skurzynski, Gloria. *Safeguarding the Land: Women at Work in Parks, Forests, and Rangelands*. New York: Harcourt Brace Jovanovich, Inc., 1981.

Wille, Christopher M. *Forestry Careers*. Lincolnwood, IL: VGM Career Horizons, 1985.

SOME RELATED ORGANIZATIONS

American Forestry Association
1319 18th Street, N.W.
Washington, D.C. 20036

Society of American Foresters
5400 Grosvenor Lane
Bethesda, MD 20814

Society for Range Management
2760 W. 5th Avenue
Denver, CO 80204

U.S. Forest Service
U.S. Department of Agriculture
P.O. Box 2417
Washington, D.C. 20013



I'M INTERESTED IN . . .

GEOGRAPHY

Geography is the study of the interrelationships between the earth and its people; it is considered both a social and natural science. It focuses on climate, land, water, space, mineral resources, popula-

tion density, changes in environment, and how man adapts to them. Geographical study encompasses human geography, economic geography, physical geography, political geography, medical geography, regional geography, and educational geography.

SOME RELATED OCCUPATIONS

Anthropologist—D
Cartographer—B
Cartographer Technician—AA
Climatologist—B
Ecologist—B
Economist—B
Educator—B
Environmental Scientist—B
Geographer—B/D

Geologist—B
Geomorphologist—B
Geophysicist—B
Historian—B/D
Landscape Architect—B
Market Research Analyst—B
Mathematician—B
Meteorologist—B
Oceanography—B

Petrologist—B
Photogrammetrist—B
Photogrammetric Technician—AA
Photographer—B
Political Scientist—B/D
Seismologist—B
Sociologist—D
Surveyor—AA
Urban Planner—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Visiting natural science museums; involvement in outdoor activities; attending geographical seminars and conferences; watching TV shows related to the natural habitat; exploring and traveling; hiking, camping and backpacking; reading or subscribing to professional publications; solving analytical and logical problems;

joining organizations such as the American Geographical Society or the National Council for Geographic Education; working part-time or as a volunteer in an architectural firm, geography departmental office or on an archeological site.

SOME RELATED SKILLS

Ability to operate and use information derived from computers
Ability to understand and interpret maps, graphs and charts
Acute spatial and form perception
Good vision and finger dexterity
Thorough understanding of geographical principles and statistical techniques

Proficiency in reading, writing, and speaking
Ability to analyze, make appropriate decisions and solve quantitative problems
Ability to conduct and clearly explain scientific research
Aptitude for accurate details
Intellectual capacity to perform well in most undergraduate or graduate college curriculums

Definitions for less familiar skill statements appear in Appendix B.

GEOGRAPHY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Intellectual growth
Independence
Desire to help and influence
mankind

Desire to help people understand
and adapt to their environment
Keen interest in both the natural and
social sciences
Spirit of scientific inquiry

Curiosity
Patience
Persistence
Resourcefulness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Careers in Geography. Washington, DC: Association of American Geographers, n.d.

"Geography." *The World Book Encyclopedia*. 1985 ed.

Geography: Tomorrow's Career. Washington, DC: Association of American Geographers, 1983.

SOME RELATED ORGANIZATIONS

Association of American Geographers
1710 16th Street, N.W.
Washington, D.C. 20009

Society of Women Geographers
1619 New Hampshire Avenue, N.W.
Washington, D.C. 20009



I'M INTERESTED IN . . .

GEOLOGY

Geology is a major branch of the physical sciences and involves the study of the earth. Geology is

divided into two main fields: physical geology (the study of earth matter and influencing forces) and historical geology (the history of the earth). Geology

includes the study of rocks, soils, mountains, rivers, oceans, and caves. Study in geology also encompasses the exploration for and the production of mineral and energy resources. A few of the sub-branches of geology are meteorology, climatology, oceanography, geophysics, petrology, sedimentology, stratigraphy, paleontology, mineralogy and geochemistry.

SOME RELATED OCCUPATIONS

Astronomer—D
Biochemist—B
Cartographer—B
Chemist—B
Civil Engineer—B
Computer Programmer—B
Crystallographer—B
Curator—B
Electrical Engineer—B
Environmental Scientist—B
Geodesist—B
Geographer—B/D

Geologist—B
Geophysicist—B
Hydrographer—B
Hydrologist—B
Laboratory Technician—AA
Mechanical Engineer—B
Metallurgical Engineer—B
Metallurgist—B
Meteorological Technician—AA
Mineralogist—B
Mining Engineer—B
Nuclear Engineer—B/D

Oceanographer—B
Paleontologist—B
Petroleum Engineer—B
Petrologist—B
Pharmacist—B
Photogrammetist—B
Physicist—B/D
Planetologist—B
Seismologist—B
Stratigrapher—B
Surveyor—AA
Technical Writer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Visiting science museums; involvement in outdoor activities; attendance at science fairs and exhibits; watching TV shows related to the natural habitat; exploring and traveling; hiking, mountain climbing, camping, and backpacking; doing jigsaw puzzles and

playing games of strategy; joining a geology or archeological club; developing hobbies and collections around soils, rocks, coins, jewelry, and other artifacts; reading science magazines.

SOME RELATED SKILLS

Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Ability to work with people of varied backgrounds
Acute spatial and form perception
Ability to make appropriate decisions and to solve quantitative problems
Aptitude for accurate details

Proficiency in reading, writing, speaking, and memorization
Ability to conduct and clearly explain scientific research
Physical stamina, good vision, and manual dexterity
Thorough knowledge of geological principles and mathematics

Definitions for less familiar skill statements appear in Appendix B.

GEOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Independence
Intellectual growth
Achievement
Enthusiasm for exploration, travel,
and outdoor work

Spirit of scientific inquiry
Resourcefulness
Imagination

Patience
Determination
Dedication

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Careers in Geology. Alexandria, VA: American Geological Institute, 1983.

"Careers in Geology." Tulsa, OK: American Association of Petroleum Geologists.

Directory of Geoscience Departments. Alexandria, VA: American Geological Institute.

Future Employment Opportunities in the Geological Sciences. Boulder, CO: Geological Society of America.

Rosbacher, Lisa A. *Career Opportunities in Geology and the Earth Sciences*. New York: Arco, 1983.

SOME RELATED ORGANIZATIONS

Geological Society of America
P.O. Box 9140
3300 Penrose Place
Boulder, CO 80301

American Institute of Professional Geologists
7828 Vance Drive, Suite 103
Arvada, CO 80003

American Association of Petroleum Geologists
P.O. Box 979
Tulsa, OK 74101



I'M INTERESTED IN . . .

HEALTH ADMINISTRATION, MANAGEMENT and RELATED SERVICES

Health administration, management and related services is concerned with the effective and efficient delivery of health care services to community residents. It involves the coordination and management of public and private hospitals, nursing homes, med-centers, clinics, mental health organizations, community health programs, etc. Study in this area concentrates on the business practices, leadership skills and support services incorporated by health care administrators and

managers in their effort to identify, treat, prevent and control disease, sickness and injury. Students are exposed to the various strategies used to insure a high quality of patient care service at the lowest possible cost. A few of the concentrations within this field are patient care, publicity, budget and finance, maintenance, housekeeping, personnel, food service and nutrition, employee relations, facilities and equipment, governmental regulations, benefits, and record-keeping.

SOME RELATED OCCUPATIONS

Activities Supervisor—B
Chief Dietitian—B
Coordinator of Rehabilitation Services—B/M
Director of Nursing—B/M
Director of Volunteer Services—B
Emergency Medical Services Coordinator—B
Executive Housekeeper—B
Health Care Administrator—B
Health Consultant—B

Health Economist—B
Health Information Specialist—B
Hospital Comptroller—B
Hospital Food Service Manager—B
Hospital Personnel Director—B
Hospital Records Administrator—B
Industrial Hygienist—B
Medical Engineer—B
Medical Physicist—B/D
Medical Records Administrator—B

Medical Social Worker—B/M
Occupational Safety and Health Inspector—B
Psychiatric Social Worker—B/M
Public Health Educator—B
Public Health Service Officer—B
Public Health Statistician—B
Public Relations Director—B
Sanitarian—B
Sanitary Engineer—B
School Health Educator—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Reading publications related to health care services and management; attending lectures, workshops and conferences related to health concerns; member of a health club or professionally related organization;

working part-time or as a volunteer in a hospital nursing home, health agency or business establishment; actively supporting health endeavors; joining a health advisory board; serving as a club or program officer.

SOME RELATED SKILLS

Ability to clearly communicate ideas and concepts to others
Ability to inspire productivity and exact loyalty from others
Aptitude for leadership
Proficiency in interpersonal communications
Proficiency in reading, writing, and speaking
Knowledge of health care services policies and trends

Intellectual capacity to perform well in most undergraduate and graduate curriculums
Ability to solve problems and make appropriate decisions
Proficiency in organizing, planning, coordinating and directing activities
Ability to meet deadlines and work well under pressure

Definitions for less familiar skill statements appear in Appendix B.

HEALTH ADMINISTRATION, MANAGEMENT and RELATED SERVICES

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Desire to help others and make a
contribution to mankind
Health
Achievement
Prestige

Willingness to work over and
beyond expectations
Strong interest in health care
services
Like to take initiative

Resourceful
Decisiveness
Diplomatic
Integrity
Responsible

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Health Services Administrator." *Career Brief*. Largo, FL: Careers, 1984.

"Health Services Administrators." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.

Kirk, Richard. *Exploring Careers in Hospital and Health Services Administration*. New York: Rosen, 1983.

Snook, Donald. "Opportunities in Hospital Administration." Lincolnwood, IL: VGM Career Horizons, 1984.

Wischnitzer, Saul. *Futures in Health: A Complete Career Guidance Handbook for Prospective Allied Health Professionals*. New York: Barron's, 1985.

SOME RELATED ORGANIZATIONS

Association of University Programs in Health Administration
1911 N. Fort Myer Drive, Suite 203
Arlington, VA 22209

American College of Health Care Administrators
8120 Woodmont Avenue, Suite 200
Bethesda, MD 20814



I'M INTERESTED IN . . .

HISTORY

History is both the study and the research of major social, political, cultural and economic events of the past. Applying the results of historical study is important for the preserva-

tion, and future growth of nations and institutions. Knowledge of the past can enable individuals to

develop pride and appreciation for the past accomplishments of others. In addition, a thorough understanding of past problems and the strategies used to resolve them can help humans to plan their present and future lives more effectively. Historical study is normally divided into either ancient, medieval, or modern.

SOME RELATED OCCUPATIONS

Anthropologist—D

Archeologist—D

Archivist—B

Biographer—B

Counselor—B/M

Consultant—B

Criminologist—B

Curator—B

Economist—B

Educator—B/D

FBI/CIA Agent—B

Foreign News Correspondent—B

Foreign Service Officer—B/M

Free Lance Writer—B

Genealogist—B/D

Gerontologist—B

Historian—B/D

Human Service Worker—B

Journalist—B

Judge—P

Lawyer—P

Lecturer—B

Librarian—B/M

Market Research Analyst—B

Newspaper Reporter—B

Paralegal Assistant—AA

Peace Corps Worker—B

Political Scientist—B/D

Psychologist—D

Public Administrator—B

Research Assistant—B

Research Library Assistant—AA

Sociologist—D

Technical Writer—B

Urban Administrator—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Traveling, visiting libraries and museums; collecting relics, stamps, antiques or coins; working part-time or as a volunteer in a library, museum, historical society, or history department; maintaining a diary; viewing historical dramas or documentaries on TV or at the

movies; joining a historical association or supporting historical preservation efforts; visiting bookstores, antique shops, or flea markets; reading history-related publications, attending auctions or antique shows; participating in activities that involve research.

SOME RELATED SKILLS

Ability to identify and evaluate records of past events, ideas, and facts accurately

Intellectual capacity to perform well in most undergraduate or graduate college curriculums

Proficiency in reading comprehension, writing, and speaking

Ability to conduct and explain scientific research clearly

Ability to collect and organize important historical data

Ability to concentrate for long periods of time

Broad background of general knowledge

Ability to make keen observations, solve problems and make appropriate decisions

Proficiency for accurate details

Definitions for less familiar skill statements appear in Appendix B.

HISTORY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Appreciation for past events and accomplishments
Independence
Intellectual growth
Recognition
Strong interest in reading and writing

Continuous desire to study and research the past
Reluctance to "throw anything away"
Analytical mind

Objectivity
Curiosity
Resourcefulness
Reflective nature
Integrity

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Career Associates. *Career Choices for Students of History*. New York: Walker, 1985.

Careers for Historians. Washington, DC: National Center for the Study of History, 1985.

Flores-Esteves, Manuel. *Life After Shakespeare: Careers for Liberal Arts Majors*. New York: Penquin, 1985.

Guide to Departments of History. Washington, DC: American Historical Association.

"Historian." *Career Brief*. Largo, FL: Career, 1981.

Nadler, Burton. *Liberal Arts Jobs*. Princeton, NJ: Peterson's, 1986.

Nadler, Burton. *Liberal Arts Power!* Princeton, NJ: Peterson's Guides, 1985.

SOME RELATED ORGANIZATIONS

American Historical Association
400 A Street, S.E.
Washington, D.C. 20003

Organization of American Historians
112 N. Bryan Street
Bloomington, IN 47401



I'M INTERESTED IN . . .

HOME ECONOMICS

Home economics is concerned with the quality and efficiency of family life and home care. Study within this area covers a broad spectrum and overlaps into a number of related fields. The four major divisions of home economics are food and

nutrition, family life and child care, clothing and textiles, and home management, decorating and equipment. Key areas of concentrating include consumer management, budget, education, recreation, housing, health, nutrition, and transportation.

SOME RELATED OCCUPATIONS

Beautician—V	Educator—B/D	Nutritionist—B
Buyer—B	Executive Housekeeper—B	Peace Corps/VISTA Volunteer—B
Child Care Worker—AA	Fashion Designer—B	Purchasing Agent—B
Child Welfare Case Worker—B	Food and Drug Inspector—B	Real Estate Agent—AA
Clothing Designer—B	Food Technologist—B	Retail Sales Worker—V
Cook/Chef—AA/V	Home Economics Teacher—B	Sales Manager—B
Cooperative Extension Worker—B	Home Economist—B	Social Service Aide—AA
Day Care Director—AA/B	Home-Health Aide—AA	Social Worker—B/M
Department Manager—B	Hotel/Motel Manager—B	Special Education Teacher—B
Dietitian—B	Interior Decorator—B	Tailor—V
Director of Food Service—B	Market Researcher—B	Teacher Aide—AA
Dressmaker—V	Marriage Counselor—B/M	Upholsterer—V
Economist—B	Merchandise Displayer—B	

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participating in charitable outreach endeavors; working part-time or as a volunteer in a day care center, hotel, hospital or community service agency; reading publications related to homemaking; joining an organization such as the 4-H or Future Homemakers of

America; attending lectures, workshops or conventions related to home economics; cooking, sewing; working part-time in a food, clothing, furniture, appliance or hardware store; working as a student aide in a home economics department.

SOME RELATED SKILLS

Ability to organize, conduct and clearly explain scientific research
Ability to persuade and influence others
Knowledge of community resources
Proficiency in interpersonal communications
Ability to communicate to and interact with people of differing backgrounds and personalities

General knowledge in many areas
Proficiency in speaking, writing and listening
Ability to analyze and think practically
Ability to make critical observations, evaluations and appropriate decisions
Possess a good understanding of human nature
Ability to solve problems

Definitions for less familiar skill statements appear in Appendix B.

HOME ECONOMICS

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Helpfulness
Achievement
Creativity
Desire to work closely with people

Strong interest in improving the
quality of home life
Sensitive to the practical needs of
people
Resourceful

Dependable
Organized
Patience
Tactful

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Hahn, Lynn and James. *Exploring Careers in Home Economics*. New York: Rosen, 1981.

"Home Economics." *The World Book Encyclopedia*. 1985 ed.

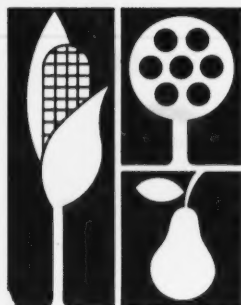
"Home Economist." *Career Brief*. Largo, FL: Careers, 1983.

SOME RELATED ORGANIZATIONS

American Home Economics Association
2010 Massachusetts Avenue, N.W.
Washington, D.C. 20036

The American Dietetic Association
430 N. Michigan Avenue
Chicago, IL 60611

American Vocational Association
Home Economics Division
1410 King Street
Alexandria, VA 22317



I'M INTERESTED IN ... HORTICULTURE

Horticulture is the branch of agriculture which involves the production and use of fruits, vegetables and ornamental plants. It includes the study of trees, flowers, shrubs, vines and grasses. Horticulture sites such

as greenhouses, garden centers and nurseries play an important role in the home gardening and landscaping pursuits of millions yearly. Specialties include fruits, vegetables, flowers, food handling, processing and storage, landscaping, arboriculture, turf and range management, nursery management and plant breeding.

SOME RELATED OCCUPATIONS

Agronomist—B
Arboriculturist—B
Biochemist—B
Botanist—B
Consultant—B
Dietitian—B
Educator—B/D
Entomologist—B
Floriculturist—AA/B
Florist—V
Food Processing Manager—V
Food Scientist—B
Forester—B
Forestry Technician—AA

Garden Magazine Writer—B
Greenskeeper—V
Groundskeeper—V
Grounds Manager—V
Horticulturalist—B
Horticultural Therapist—B
Landscape Architect—B
Landscape Gardener—V
Nursery Manager—V
Nutritionist—B
Orchardist—V
Park Ranger—V
Plant Breeder—B

Plant Geneticist—B/D
Plant Mycologist—D
Plant Pathologist—D
Plant Physiologist—D
Research Horticulturalist—B/D
Sales Representative—B
Seed Analyst—B
Silviculturist—B
Soil Conservationist—B
Soil Scientist—B
Tree Surgeon—V
Vegetable Farmer—V
Vine-Fruit-Farmer—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer in a garden center, nursery, fruit orchard or greenhouse. Subscribing to or reading professional publications related to horticulture; visiting botanical gardens, state and national parks, conservatories and arboreums, attending flower shows and state fairs; gardening, canning and freezing; developing hobbies and collections around flowers, leaves, house plants or floral design; joining a

science club, 4-H club, orchid club or a conservation group; supporting or participating in natural resource preservation efforts; member of a professional organization such as the American Society for Horticultural Science; attending clinics, lectures and workshops related to horticulture; working as a student aide in a high school or college greenhouse.

SOME RELATED SKILLS

Possess a good understanding of and familiarity with plants of all types
Physical stamina, good vision and manual dexterity
Ability to recognize differences in shapes, shading and color
Ability to work alone as well as with others
Ability to make keen observations and sound judgments

Proficiency in reading and writing
General knowledge of horticulture supplies, equipment, services and business/marketing practices
Proficiency for accurate details
Ability to manage and supervise others
Ability to apply scientific methods to horticultural concerns

Definitions for less familiar skill statements appear in Appendix B.

HORTICULTURE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity
Aesthetic awareness
Helping mankind
Independence
"Green thumb" tendencies

Strong interest in plants
Fondness for outdoor activities
Perseverance
Industrious

Curiosity
Imagination
Cooperation
Friendliness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Careers in Botany." Lexington, KY: Botanical Society of America.

A Guide to Majors and Careers at Virginia Tech. Blacksburg, VA: Virginia Polytechnical Institute.

"Horticulturist." *Career Summary*. Largo, FL: Careers, 1983.

Kessler, George M. "Careers in Horticulture." *HortScience*, 17, 1982: 327-332.

SOME RELATED ORGANIZATIONS

American Society for Horticultural Science
701 N. St. Asaph Street
Alexandria, VA 22314

National Junior Horticultural Association (NJHA)
5885 10th Street
Fremont, MI 49412

Society of American Florists
1601 Duke Street
Alexandria, VA 22314



I'M INTERESTED IN . . .

HOTEL/MOTEL MANAGEMENT

Hotel/motel management is concerned with the efficient profitable management and operation of hotels, motels and other hospitality-oriented institutions. Study in this area

focuses on customer service, public relations, marketing, sales, maintenance, housekeeping, supervision,

hotel and restaurant management and service, sanitation and safety, budgeting, conventions, and personnel. Specializations include executive housekeeping, maintenance engineering, front office operations, food and beverage management, budget, sales, advertising, recreation, purchasing, accounting, personnel training, conventions, restaurant management, reservations, sanitation and safety, and security.

SOME RELATED OCCUPATIONS

Airport Manager—B
Assistant Housekeeper—V
Assistant Manager—AA
Bellhop—V
Bowling Manager—V
Building Manager—V
Cafeteria Manager—AA/V
Building Engineer—AA/V
Club Manager—B
Desk Clerk—V

Director of Food and Beverage—AA/V
Director of Sales—B/V
Executive Housekeeper—B
Food Production Manager—V
Front Office Manager—V
General Manager—B
Maitre D'Hotel—AA/V
Managing Director—B
Marketing Manager—B

Office Manager—AA
Personnel Manager—B
Purchasing Agent—B
Reservation Clerk—V
Resident Manager—B
Retail Manager—B
Steward/Stewardess—V
Supermarket Manager—V
Theater Manager—V
YMCA/YWCA Director—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer bellhop, desk clerk or hotel restaurant employee; organizing get-togethers, parties or community events; leader of student group; participating on a debate or forensic team; participating in writing or oratory contests; reading

publications related to management; attending lectures, workshops and conferences related to hotel/motel management; joining a professional organization; managing or helping others to manage apartments on a part-time basis.

SOME RELATED SKILLS

Proficiency in interpersonal communication
Proficiency in reading, writing and speaking
Ability to solve problems and make appropriate decisions
Ability to interact with people of differing backgrounds and personalities
Aptitude for accurate details
Ability to maintain composure under pressure and react spontaneously

Good physical stamina, vision and health
Ability to accept public scrutiny and criticism
Ability to supervise and coordinate the activities of others
General knowledge of the hospitality industry
Familiarity with business, finance and marketing techniques
Ability to persuade and influence others

Definitions for less familiar skill statements appear in Appendix B.

HOTEL/MOTEL MANAGEMENT

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Recognition and appreciation from others
Skill with people
Achievement
Helping others
Willing to go the "extra mile"
Desire to work with and please others

Willingness to work long and irregular hours and weekends
Pleasant and friendly personality
Diplomacy
Helpfulness

Attentive
Leadership
Imagination
Knowledgeable
Energetic

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Club Management—A Path to a Rewarding Future." Bethesda, MD: Club Managers Association of America.

Gordon, Susan. *Your Career in Hotel Management*. New York: Arco, 1983.

Henkin, Shepard. *Opportunities in Hotel and Motel Management*. Lincolnwood, IL: VGM Career Horizons, 1985.

"Hotel Managers and Assistants." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.

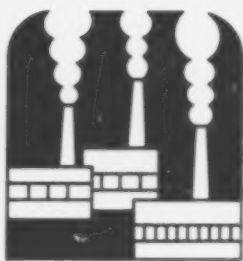
"Hotel-Motel Manager." *Career Brief*. Largo, FL: Careers, 1983.

Humphers, Sandra. *Exploring Careers in the Hotel and Motel Industry*. New York: Rosen, 1983.

SOME RELATED ORGANIZATIONS

The American Hotel and Motel Association
888 Seventh Avenue
New York, NY 10019

Council on Hotel, Restaurant and Institutional Education
Hendersen Building, Rm. S-203
The Pennsylvania State University
University Park, PA 16802



I'M INTERESTED IN . . .

INDUSTRIAL ENGINEERING

Industrial engineering study utilizes the principles and knowledge of science, mathematics and engineering to efficiently and economically integrate people, machines,

equipment, materials and energy in a manner that will maximize production and human benefit. Students are

familiarized with techniques for efficient production, time-and-motion study, data processing design, management control, quality control, plant layout, safety procedures and conditions and environment control. Specialties include operations research, management, ergonomics, environmental controls, plant layout and design, production planning and control, and computer processing.

SOME RELATED OCCUPATIONS

Automotive Engineer—B
Computer Programmer—B
Consulting Engineer—B
Electrical Engineer—B/D
Engineer Educator—B/D
Environmental Engineer—B
Fire Protection Engineer—B
Human Resources Manager—B

Industrial Engineer—B
Manufacturing Engineer—B
Material Handling Engineer—B
Materials Engineer—B
Mechanical Engineer—B
Operations Engineer—B
Plant Engineer—B
Plastics Engineer—B

Process Engineer—B
Quality Control Engineer—B
Research Engineer—B/D
Safety Engineer—B
Sales Engineer—B
Systems Analyst—B
Systems Engineer—B
Time Study Engineer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participating in fund raising or social events which involve organization and planning; working part-time or as a volunteer in a supervisory type position in a factory or a school industrial arts department, solving analytic, logic and budgetary problems, reading publi-

cations related to engineering; attending related lectures and workshops; participating in clubs or organizations which require you to make oral presentations and write reports; working part-time or as a volunteer research assistant.

SOME RELATED SKILLS

Ability to synthesize and integrate various factors of production
Proficiency in mathematics and science
Ability to make keen observations and sound judgments
Proficiency in written and oral communication
Ability to conduct and clearly communicate scientific research

Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Aptitude for leadership
Ability to analyze, organize and interpret scientific data

Definitions for less familiar skill statements appear in Appendix B.

INDUSTRIAL ENGINEERING

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity
Knowledge
Achievement
Desire to help others live better
Enjoy challenges

Like seeing ideas developed into
practical use
Initiative
Perseverance

Flexibility
Organized
Imagination
Curiosity

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

"Engineering." *The World Book Encyclopedia*. 1985 ed.

"Engineers, General." *Career Brief*. Largo, FL: Careers, 1983.

"Industrial Engineers." Moravia, NY: Chronicle Occupational Brief, 1984.

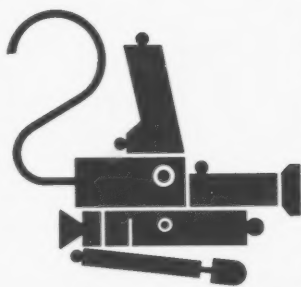
Planning Your Career as an Industrial Engineer. Norcross, GA: Institute of Industrial Engineers.

Reyes-Guerra, David R. and Alan Fischer. *Peterson's Guide to Undergraduate Engineering Study*. Princeton, NJ: Peterson's Guides, 1981.

SOME RELATED ORGANIZATIONS

Institute of Industrial Engineers, Inc.
25 Technology Park Atlanta
Norcross, GA 30092

National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314



I'M INTERESTED IN . . .

INDUSTRIAL and PRECISION PRODUCTION/TECHNOLOGY

Industrial and precision production/technology is the study of the design and production of tools and machines as well as consumer products. This area is usually referred to as the machine trades field. Students are exposed to intricate precise techniques of machine and product development. Areas of focus include blueprint read-

ing, machine function and operation, precision and accuracy, applied mathematics, production, materials applications, installation, repair, and service. Major areas include tool-and-die, machines, job setting, toolmaking, machine operating, moldmaking, diemaking, inspection, instrument making, computer aid design (CAD), and computer aid manufacturing (CAM).

SOME RELATED OCCUPATIONS

Blacksmith—V
Boilermaker—V
Bookbinder—V
Butcher—V
Cabinet Maker—V
Compositor—V
Gunsmith—V
Hand Molder—V

Jeweler—V
Layout Worker—V
Lithographer—V
Locksmith—V
Machine Operator—V
Machine Tool Operator—V
Machinist—V
Patternmaker—V

Photoengraver—V
Printing Press Operator—V
Shoe Repairer—V
Tool and Die Maker—V
Tool Programmer—V
Typesetter—V
Upholsterer—V
Welder—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer worker in a machine shop, school industrial arts or metal shop; fixing and repairing mechanical items; such as household appliances, overhauling car engines or building race cars, go-carts, dune buggies or other mechanical

vehicles as a past-time; reading mechanically related manuals and books; member of an organization such as the Vocational Industrial Clubs of America (VICA).

SOME RELATED SKILLS

Aptitude for mathematics and mechanics
Aptitude for acute spatial perception and precise accurate details
Possess good vision, motor coordination, and manual and finger dexterity
Knowledge of machine operations and industrial practices and trends
Ability to read and interpret blueprints, diagrams and schematic drawings

Ability to follow directions and work alone as well as with others
Ability to meet deadlines
Thorough knowledge and ability in one's area(s) of specialization
Ability to make sound judgments, appropriate decisions and solve problems

Definitions for less familiar skill statements appear in Appendix B.

INDUSTRIAL and PRECISION PRODUCTION/TECHNOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement

Skill

Security

Desire to be exact and "to the point"

Able to adapt to awkward and uncomfortable positions

Enjoy "hands-on" activities

Thoroughness

Patience

Preciseness

Careful

Competent

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Bell, John A., and Lonny D. Garvey. *Opportunities in the Machine Trades*. Lincolnwood, IL: VGM Career Horizons, 1986.

Borowsky, Irving. *Opportunities in Printing Careers*. Lincolnwood, IL: VGM Career Horizons, 1985.

Lobb, Charolotte. *Exploring Careers in Apprenticeship*. New York: Rosen, 1985.

Ricci, Larry J. *High-Paying Blue-Collar Jobs for Women*. New York: Ballantine Books, 1981.

SOME RELATED ORGANIZATIONS

National Tooling and Machining Association
9300 Livingston Road
Ft. Washington, MD 20744

National Machine Tool Builders Association
7901 Westpart Drive
McLean, VA 22102



I'M INTERESTED IN . . .

LAW

Law is the study of the rules and guidelines by which a society maintains order and cooperation. The effective development, implementation, interpretation and modification, when necessary, of rules and guidelines is a requirement for transmitting societal values and expectations. Study in law exposes

the student to civil and constitutional law, contracts, property, legal methods, research and writing, torts, criminal law and taxation, lawyer and client theory, law history and many other areas. Specialties include civil, criminal, or labor; real estate, corporate, or patent; tort, international, or taxation; entertainment, trust, or admiralty; bankruptcy, and environmental law.

SOME RELATED OCCUPATIONS

Admiralty Lawyer—D
 Adjudicator—P
 Appeals Referee—P
 Appellate Court Judge—P
 Abstractor—B
 Bar Examiner—P
 Contract Clerk—AA
 Corporation Lawyer—P
 Criminal Lawyer—P
 District Attorney—P

District Court Judge—P
 Escrow Officer—B
 Insurance Attorney—P
 Judge—P
 Juvenile Court Judge—P
 Law Educator—P/D
 Lawyer—P
 Legal Assistant—AA
 Legal Investigator—B
 Parole/Probation Officer—B

Patent Agent—B
 Patent Lawyer—P
 Politician—B
 Probate Lawyer—P
 Real Estate Buyer—B
 Supreme Court Justice—P
 Tax Attorney—P
 Title Attorney—P
 Traffic Court Magistrate—P

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participating in activities that involve research; visiting libraries and attending court sessions; reading law publications, viewing dramas or documentaries on TV or at the movies and attending lectures or conferences related to law; working part-time or as a volunteer in

a law office or department; joining a student government or newspaper staff; freelance or technical writing; participating in community associations; joining a debate or forensics team; competing in oratory contests; participating in conversation with others.

SOME RELATED SKILLS

Ability to speak articulately, read comprehensively, and write well
 Ability to persuade and influence others
 Broad background of general knowledge, particularly in law and law-related areas
 Able to make keen observations and sound judgments
 Ability to research, collect, organize and clearly present to others, data of all kinds

Familiarity with legal practices, policies and trends
 Intellectual capacity to perform well in most undergraduate and graduate curriculums
 Ability to analyze and evaluate data, make appropriate decisions and solve problems
 Ability to communicate abstract ideas to others
 Aptitude for accurate details
 Aptitude for leadership

Definitions for less familiar skill statements appear in Appendix B.

LAW

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Intellectual growth
Power
Prestige
Desire for recognition and appreciation from others
Able to work under pressure, meet

deadlines and accept close public scrutiny and criticism
High regard for and appreciation of law
Sensitive to the needs of an orderly society and human beings

Persistence
Integrity
Resourcefulness
Persuasiveness
Analytical mind
Trustworthiness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Goldfarb, Sally. *Inside the Law Schools: A Guide by Students, for Students*. New York: Dutton, 1983.

Graham, Lawrence. *Your Ticket to Law School: Getting In and Staying In*. New York: Bantam, 1985.

Law As A Career. Chicago, IL: American Bar Association, 1982.

Munneke, Gary. *Opportunities in law Careers*. Lincolnwood, IL: VGM Career Horizons, 1986.

SOME RELATED ORGANIZATIONS

American Bar Association
750 N. Lake Shore Drive
Chicago, IL 60611

Association of American Law Schools
One Dupont Circle, N.W.
Washington, D.C. 20036



I'M INTERESTED IN . . .

LEGAL AND PROTECTIVE SERVICES

Legal and protective services is the study of several related fields which focus on the effective implementation of law and legal procedures as well as the relationship of laws to the

safety and protection of life and property. Legal services are more concerned with research and support

related to the understanding and interpretation of law, legal procedures and practices. Study in protective services concentrates on the implementation of laws aimed at ensuring the peaceful cooperation, security and safety of human lives and property. Some specialties and titles of majors included are legal assisting, criminal justice and public safety, corrections and rehabilitation, and law enforcement.

SOME RELATED OCCUPATIONS

Administrative Examiner—P
Baliff—V
Corrections Officer—AA
Court Reporter—AA
Criminologist—B
Deputy Sheriff—AA
Detective—AA
District Attorney—P
FBI Agent—B/M
Firefighter—AA

Fish and Game Warden—AA/B
Guard—V
Judge—P
Law Librarian—B
Lawyer—P
Legal Assistant (paralegal)—AA
Legal Secretary—AA
Lifeguard—V
Military Officer—B
Parole/Probation Officer—B

Penologist—B
Police Commissioner—B
Police Instructor—B/M
Police Officer—AA
Polygraph Examiner—AA/B
Private Investigator—V
Security Officer—V
Special Agent—B
Vocational Rehabilitation
Counselor—B/M

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer in a fire or police station, law office, or marketing research firm; participating in activities that involve investigation and research; viewing law-related dramas and documentaries on TV; visiting libraries; reading publications

related to legal or protective services; joining a professional organization such as the American Bar Association, writing reports; participating in student government; member of a debate or forensic team; serving in the armed forces.

SOME RELATED SKILLS

Background of legal knowledge
Ability to react spontaneously and maintain composure under pressure
Proficiency in reading, writing and speaking
Ability to make appropriate decisions and sound judgments
Ability to interact with people of differing personalities and background

Ability to solve problems and meet deadlines
Proficiency in interpersonal communication
Aptitude for accurate details
Ability to persuade and influence others
Ability to conduct and clearly explain scientific research
Good vision, physical stamina and manual dexterity

Definitions for less familiar skill statements appear in Appendix B.

LEGAL AND PROTECTIVE SERVICES

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Security
Wisdom
Helping others
Appreciation for order and thoroughness

Tendency toward analytical and logical thinking
Like to investigate and explore for factual detail
Integrity

Persistence
Alertness
Trustworthy
Like challenges

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Baker, Mark. *Cops: Their Lives in Their Own Words*. New York, NY: Simon and Schuster, 1985.

Berkey, Rachel L. *New Career Opportunities in the Paralegal Profession*. New York: Arco, 1983.

"Police Officer." *Career Brief*. Largo, FL: Careers, 1982.

Cornelius, Hal. *Career Guide for Paralegals*. New York: Monarch Press, 1983.

Neal, Harry. *Secret Service In Action*. New York, NY: Lodestar, 1980.

Steinberg, Eve. *You As A Law Enforcement Officer: Career Opportunities for a Secure Future*. New York: Arco, 1985.

Stinchcomb, James. *Opportunities in Law Enforcement and Criminal Justice*. Lincolnwood, IL: VGM Career Horizons, 1986.

SOME RELATED ORGANIZATIONS

National Association of Legal Assistants
1420 South Utica
Tulsa, OK 74104

Academy of Criminal Justice Sciences Secretariat
Center for Applied Urban Research
University of Nebraska
Omaha, NE 68182



I'M INTERESTED IN . . .

LIBRARY and INFORMATION SCIENCES

Library and information science is the study of how information of all kinds is stored, organized, classified and made available for use by others. Study in this area exposes the student to the intricate logistics required for acquiring, circulating and maintaining massive amounts of informational materials for those who want and need it. Also,

students learn various ways to access information as well as techniques of promotion. Major concentrations within this field are many and include a focus on children, young adults, reference materials, audiovisual, school and college services, special library services, cataloging, special collections, material acquisitions, adult materials, community outreach, and administration.

SOME RELATED OCCUPATIONS

Acquisitions Librarian—B
Archivist—B
Bibliographer—B
Cataloger—B
Children's Librarian—B
Community Outreach Librarian—B
Computer Operator—AA
Computer Programmer—B
Curator—B
Data Base Manager—B

Data Entry Equipment Operator—AA
Film Librarian—AA/B
Government Document Librarian—B
Information Scientist—B
Library Consultant—B/M
Library Director—B/M
Library Educator—B/D
Library Technician—AA
Linguist—B/M

Medical Librarian—B/M
Music Librarian—B
Rare Books Specialist—B
Reference Librarian—B/M
Research Assistant—AA
School Librarian—B/M
School Library Media Specialist—B/M
Special Collections Librarian—B
Systems Programmer—B
Young Adult Librarian—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Reading; free-lance writing; attending book fairs, used book sales and browsing through bookstores; visiting libraries and museums; member of a book club, literary society, or professional organization such as the American Library Association; attending lectures, workshops and conferences related to library and

information science; working part-time or as a volunteer in a library, bookstore, law office or research firm; participating in activities that involve research; subscribing to a professional publication; collecting items such as stamps or rare books as a hobby.

SOME RELATED SKILLS

Knowledgeable in one's area of specialization as well as overall background of general knowledge
Proficiency in reading and grammar and an understanding of vocabulary
Ability to organize, collect, classify, arrange and coordinate materials of all kinds
Able to make sound judgments and appropriate decisions and solve problems
Good vision and physical stamina

Proficiency in interpersonal communications
Able to work with others as well as work quietly alone for long periods of time
Ability to conduct and clearly explain scientific research
Intellectual ability to perform well in most undergraduate or graduate college curriculums
Aptitude for accurate details and memorization

Definitions for less familiar skill statements appear in Appendix B.

LIBRARY and INFORMATION SCIENCES

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Intellectual growth
Wisdom
Helping others to learn how to learn
Love of reading and exploring for
information

Willingness to engage in lifelong
learning
Flexibility
Resourcefulness

Analytical
Intellectual curiosity
Pursuing

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Library and Information Careers in the 80's. Chicago, IL: American Library Association, 1983.

"Librarian." *Career Brief*. Largo, FL: Careers, Inc., 1981.

Heim, Kathleen and Peggy Sullivan. *Opportunities in Library and Information Science*. Lincolnwood, IL: VGM Career Horizons, 1985.

Special Library Careers. New York, NY: Special Libraries Association.

Teachers, Librarians and Counselors." *Occupational Outlook Handbook*. Washington, D.C.: U.S. Department of Labor, 1986-87.

SOME RELATED ORGANIZATIONS

American Library Association
50 East Huron Street
Chicago, IL 60611

American Society for Information Science
1424 Sixteenth Street, N.W., Suite 404
Washington, D.C. 20036



I'M INTERESTED IN . . .

MARKETING and DISTRIBUTION

Marketing and distribution is a major field in the area of business which involves the study of consumer needs and

desires for products and services, their willingness and ability to pay for these needs/desires and the geographical vicinity in which these consumers reside. In

addition, it is a study of the various strategies used to attract and motivate people to buy or subscribe to a product or service along with exposure to the numerous methods of distribution. Specializations in this area include sales, advertising, sales promotion, retail, brand management and marketing research.

SOME RELATED OCCUPATIONS

Advertising Account Executive—B
Advertising Manager—B
Advertising Space
Salesperson—AA
Assistant Buyer—B
Automotive Sales Worker—AA
Buyer—B
Cashier—V
Circulation Manager—B
Customer Service Worker—V
Direct Salesperson—AA
Director of Marketing—B
Fashion Model—V

Field Representative—AA
Insurance Agent—AA
Market Research Analyst—B
Manufacturer Sales
Representative—AA
Manufacturer Sales Workers—AA
Merchandise Manager—B
Package Designer—B
Personnel Specialist—B
Pharmaceutical Sales
Representative—B
Photographer—AA/B
Product Manager—B

Purchasing Agent—B
Real Estate Agent—AA
Retail Sales Worker—V
Sales Manager—B
Sales Promotion Manager—B
Sales Route Driver—V
Sales Supervisor—B
Securities Sales Agent—B
Stock Handler—V
Store Controller—B
Store Manager—B
Travel Agent—AA
Wholesale Trade Sales Worker—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time in a department store, advertising firm, warehouse or similar wholesale/retail establishment; member of a Junior Achievement Club, Distributive Education Club (DECA) or a professional organization such as the American Marketing Association; participating in oratory contests; participating on a debate or forensics team; attending auctions, political rallies or sales lectures; participating in a civic

fund raising event, or in student government; writing promotional materials, reading publications related to marketing and distribution; attending sales and marketing workshops and conferences; serving as a student aide in a school or college distributive education or marketing department, selling products or services on a part-time basis.

SOME RELATED SKILLS

Ability to work well with people of differing personalities and backgrounds
Ability to make appropriate decisions and sound judgments
Ability to persuade and influence others
Possess a good understanding of vocabulary and speak well

Good knowledge of marketing techniques and consumer products and needs
Ability to solve problems
Physical stamina and emotional well-being
Ability to conduct and apply the results of consumer research
Aptitude for selling

Definitions for less familiar skill statements appear in Appendix B.

MARKETING and DISTRIBUTION

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement	Outgoing, polite and friendly attitude	Energetic
Prestige	Desire to serve and please others	Patience
Wealth	Tendency to be alert and ambitious	Poise
Desire for recognition and appreciation from others	Competitive	Neatness
Creativity		Self-confidence

Definitions for less familiar terms and statements appear in Appendix C.

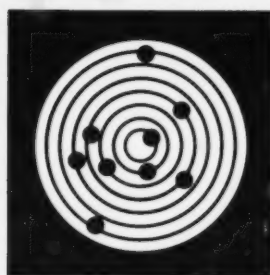
SOURCES FOR FURTHER EXPLORATION

- Haas, Kenneth. *Opportunities in Sales and Marketing*. Lincolnwood, IL: VGM Career Horizons, 1982.
- Laskin, David. *Getting Into Advertising: A Career Guide*. New York: Ballantine, 1986.
- Rosenthal, David and Michael Powell. *Careers in Marketing*. Englewood Cliffs, NJ: Prentice-Hall, 1984.
- Weinstein, Bob. *Breaking into Sales*. New York: Arco, 1984.

SOME RELATED ORGANIZATIONS

American Marketing Association
250 S. Wacker Drive, Suite 208
Chicago, IL 60606

Sales and Marketing Executives International
6151 Wilson Miller Road, Suite 200
Cleveland, OH 44143



I'M INTERESTED IN . . .

MATHEMATICS

Mathematics is the study of quantitative relationships expressed in numbers and symbols. It focuses on mathematical concepts and theories and involves their

formulation, testing, interpretation, and practical application. Mathematics is usually referred to as

either pure (more theoretical and abstract) or applied (more practical and visibly problem solving). Mathematics in some form or manner is used by just about everyone. A minimal understanding and use of mathematics is considered basic to competent daily life. Major branches include arithmetic, algebra, geometry, trigonometry, calculus, probability, and statistics.

SOME RELATED OCCUPATIONS

Accountant—B
Actuary—B/M
Aerospace Engineer—B
Airplane Pilot—AA/B
Air Traffic Controller—AA
Appraiser—B
Architect—B
Astronomer—D
Bank Officer—AA/B
Bookkeeper—AA
Cartographer—B
Chemist—B
Computer Programmer—B

Credit Manager—AA/B
Drafter—V
Economist—B
Educator—B/D
Electrician—V
Financial Planner—B
Geologist—B
Hydrologist—B
Insurance Agent—AA
Internal Revenue Agent—B
Mathematician—B/D
Market Research Analyst—B

Metallurgist—B
Meteorologist—B/D
Nuclear Engineer—B/D
Nuclear Scientist—B/D
Pharmacologist—B
Physicist—B/D
Radar Technician—AA
Statistician—B
Stockbroker—E
Surveyor—AA
Systems Analyst—B
Tool and Die Maker—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Doing jigsaw puzzles and playing games of strategy; participating in tournaments, quiz bowls and other competitive events; solving problems involving analytical and logical processes; joining a math club, science organization, or investment group; serving as

committee or church treasurer or as a financial officer for a civic or social agency; working as a part-time or volunteer sports statistician, reading math or science publications.

SOME RELATED SKILLS

Ability to make sound judgments and decisions and to solve quantitative problems
Ability to concentrate for long periods of time
Proficiency in writing, speaking, and memorization
Proficiency for accurate details
Ability to understand both concrete and abstract mathematical concepts

Ability to organize, analyze and interpret numerical data
Ability to make critical observations
Ability to conduct and clearly explain scientific research

Definitions for less familiar skill statements appear in Appendix B.

MATHEMATICS

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Independence
Intellectual growth
Achievement
Security
Ability to frame inquiry and respond objectively

Tendency toward analytical and logical thinking
Capacity for precision and detail
Appreciation for challenges
Thoroughness

Imagination
Patience
Persistence
Self-discipline

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Career Associates. *Career Choices for Students of Mathematics*. New York: Walker and Company, 1985.

Careers in Statistics. Washington, DC: American Statistical Association.

Martin, Gail M. "Math and Your Career." *Occupational Outlook Quarterly*, 26, 1983: 28-31.

"Mathematician." *Career Brief*. Largo, FL: Careers, Inc., 1980.

Professional Opportunities in Mathematical Sciences. Washington, DC: Mathematical Association of America.

SOME RELATED ORGANIZATIONS

American Mathematical Society
P.O. Box 6248
Providence, RI 02940

Mathematical Association of America
1529 18th Street, N.W.
Washington, D.C. 20036

Association for Women in Mathematics
P.O. Box 178
Wellesley College
Wellesley, MA 02181

American Statistical Association
806 15th Street, N.W., Suite 640
Washington, D.C. 20005



I'M INTERESTED IN . . .

MECHANICAL ENGINEERING

Mechanical engineering study focuses on the practical application of science, mathematics and energy in the design and development of machines and related mechanical equipment that produce and use power as well as those used in manufacturing products, in an economical and efficient manner. Internal

combustion engines, motors of all types, nuclear reactors, refrigerators, elevators, robots and a variety of medical equipment are a few of the visible results of mechanical engineering. Some of the specialties in this field include automotive, air conditioning/refrigeration and heating, research, nuclear power, and aircraft.

SOME RELATED OCCUPATIONS

Aerospace Engineer—B/D

Agricultural Engineer—B

Astronaut—B

Automotive Engineer—B

Biomedical Engineer—B

Computer Programmer—B

Computer Science Engineer—B

Consulting Engineer—B

Electrical Engineer—B

Engineer—B

Engineering Educator—B/D

Engineering Mechanic—AA

Engineering Technician—AA

Heating and Air-conditioning
Engineer—B

Industrial Engineer—B

Materials Engineer—B

Materials Handling Engineer—B

Mechanical Drafter—AA

Mechanical Engineer—B

Mechanical Technician—AA

Millwright—V

Packaging Engineer—B

Plastics Engineer—B

Research Engineer—B/D

Safety Engineer—B

Sales Engineer—B

Systems Analyst—B

Systems Engineer—B

Test Engineer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Tinkering with electrical appliances or other mechanical devices; participating in a club or organization which requires one to make oral presentations and write reports; developing hobbies or interest around radios, stereos, building go-carts, fixing cars and other similar activities; reading publications related to

mechanics or engineering; member of a student or professional engineering organization; working part-time or as a volunteer in a engineering firm, mechanic shop or engineering department; attending lectures and workshops and taking leisure classes related to mechanical engineering.

SOME RELATED SKILLS

Ability to make keen observations and sound judgments

Proficiency in mathematics and science

Ability to synthesize and integrate various factors of production

Proficiency in written and oral communication

Ability to conduct and clearly communicate scientific research

Intellectual capacity to perform well in most undergraduate or graduate college curriculums

Ability to work well with others

Ability to solve problems and make appropriate decisions

Aptitude for accurate details, spatial perception and abstract reasoning

Manual dexterity and understanding of mechanics

Able to operate and use information derived from computers

Proficiency in one's area of specialization and knowledgeable of current practices and trends

Sensitive to economic considerations and human needs

Definitions for less familiar skill statements appear in Appendix B.

MECHANICAL ENGINEERING

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity
Achievement
Knowledge
Desire to help others live better

Like seeing ideas developed into
practical uses
Like challenges
Imagination
Flexibility

Persuasive
Curiosity
Thoroughness
Responsible

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

A Career for the Future. New York: American Society of Mechanical Engineers.

"Engineers, General." *Career Brief.* Largo, FL: Careers, 1983.

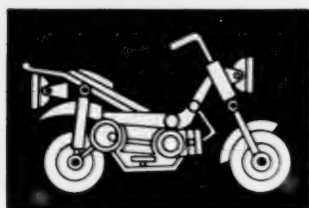
"Engineering." *The World Book Encyclopedia.* 1985 ed.

What's It Like to be an Engineer? Fairfield, CT: General Electric Company, 1983.

SOME RELATED ORGANIZATIONS

National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314

The American Society of Mechanical Engineers
345 E. 47th Street
New York, NY 10017



I'M INTERESTED IN . . .

MECHANICS and RELATED SERVICES

Mechanics involves the study of machine design, building, operation, repair and service. Mechanics

cover a broad range and include appliances, communication and computer equipment, industrial machinery

and office machines as well as vehicle and mobile mechanics. Among the specialties within this area are automotive, aircraft, diesel, farm equipment, appliances, office machines, radio/TV, air-conditioning, refrigeration, and heating.

SOME RELATED OCCUPATIONS

Air-Conditioning, Refrigeration,
and Heating Mechanic—AA
Aircraft Mechanic—V
Automotive Body Repairer—V
Automotive Mechanic—V
Bicycle Repairer—V
Cable Splicer—V
Commercial/Industrial Electronic
Equipment Repairer—V
Computer Service Technician—AA

Diesel Mechanic—V
Electronic Home Equipment
Repairer—V
Engine Specialist—V
Farm Equipment Mechanic—V
General Maintenance
Mechanic—V
Gunsmith—V
Industrial Machine Repairer—V
Instrument Repairer—V

Line Installer—V
Locksmith—V
Millwright—V
Motorcycle Mechanic—V
Musical Instrument Repairer—V
Office Machine Servicer—V
Telephone Installer/Repairer—V
Vending Machine Servicer—V
Watchmaker—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer mechanic in a service station, bicycle repair or small engine shop; repairing electric appliances or other mechanical gadgetry; reading manuals and books related to auto

mechanics; developing hobbies and collections around cars, model kits, racing, etc.; doing one's own car repair; building and/or repairing go-carts, mini-bikes, lawn mowers, scooters, etc.; auto shows, racing.

SOME RELATED SKILLS

Good health, vision, hearing and motor coordination
Aptitude for mechanics
Ability to read and understand technical and service manuals, diagrams, etc.
Good listening skills
Able to work alone as well as with others
Ability to meet deadlines

Ability to interact with people with differing personalities and backgrounds
Proficiency in spatial perception and mechanical dexterity
Ability to make sound judgments, appropriate decisions and solve problems
Thorough knowledge and ability in one's area of mechanical specialization

Definitions for less familiar skill statements appear in Appendix B.

MECHANICS and RELATED SERVICES

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Skill	Enjoy "hands-on" activities	Preciseness
Accomplishment	Willingness to continue training	Trustworthy
Security	and education throughout life	Careful
Willingness to work in dirty, greasy and sometimes awkward and hazardous positions	Dependable	Thoroughness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Hammer, Hy. *Mechanical Ability Tests*. New York: Arco, 1984.

"Mechanics and Repair Technicians." *Career Summary*. Largo, FL: Careers, 1983.

"Mechanics and Repairer." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.

Weber, Robert M. "Opportunities in Automotive Service." Lincolnwood, IL: VGM Career Horizons, 1984.

SOME RELATED ORGANIZATIONS

Automotive Service Industry Association
444 North Michigan Avenue
Chicago, IL 60611

Aviation Maintenance Foundation
P.O. Box 739
Basin, WY 82410



I'M INTERESTED IN . . .

MEDICINE

Medicine is a branch of the health sciences and focuses on the application of medicine and medical techniques in the treatment, care and prevention of disease, illness

and injury. Students of medicine are exposed to how medical knowledge and procedures, chemicals (drugs),

and technology assist to minimize excruciating pain as well as preserve the physical lives of thousands yearly. Among the various specialties are anesthesiology, colon and rectal surgery, dermatology, family practice, internal medicine, neurological surgery, obstetrics and gynecology, pediatrics, urology, and plastic surgery.

SOME RELATED OCCUPATIONS

Allergist-Immunologist—P
Anesthesiologist—P
Cardiologist—P
Chiropractor—P
Dentist—P
Dermatologist—P
General Practitioner—P
Gynecologist—P
Internist—P
Medical Officer—B
Neurologist—P

Obstetrician—P
Ophthalmologist—P
Optometrist—P
Orthodontist—P
Osteopathic—P
Otolaryngologist—P
Pathologist—P
Pediatrician—P
Pedodontist—P
Pharmacologist—P

Physiatrist—P
Physician—P
Plastic Surgeon—P
Podiatrist—P
Proctologist—P
Psychiatrist—P
Radiologist—P
Surgeon—P
Urologist—P
Veterinarian—P

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Attending medical science fairs, exhibits and visiting science museums; reading medically related publications; joining a health club; doing lab experiments and researching medically-related topics; member of a medical science club or professional organization;

working as a part-time or volunteer in a local hospital, nursing home or community health agency; actively participating in or financially supporting medical research efforts; attending lectures and conferences related to medicine.

SOME RELATED SKILLS

High proficiency for accurate details
Ability to react spontaneously and maintain emotional and physical composure in stressful situations
Proficiency in interpersonal communication
Ability to work under pressure and concentrate intensely
Proficiency in critical thinking, analyzing and problem-solving
Physical stamina, good vision, and manual dexterity

Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Thorough knowledge of medical theories and practices
Ability to conduct and clearly explain scientific research
Ability to make critical observations and appropriate decisions
Aptitude for applied science
Proficiency in reading and memorization

Definitions for less familiar skill statements appear in Appendix B.

MEDICINE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Prestige
Health
Wisdom
Achievement
Desire to help others and make a contribution to mankind

Like challenges
Willingness to work long and irregular hours
Sensitivity for and desire to alleviate pain and suffering in others
Scientific inquiry

Analytical
Perseverance
Dedication
Imagination
Alertness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Bluestone, Naomi. *So You Want To Be A Doctor?: The Realities of Pursuing Medicine as a Career*. New York: Morrow, 1981.

Graham, Lawrence. *Your Ticket to Medical or Dental School: Getting in and Staying in*. New York: Bantam Books, 1985.

Helping Hand: Horizons Unlimited in Medicine. Chicago: American Medical Association, 1983.

Quinn, Carin. *Your Career As A Physician*. New York: Arco Career, 1979.

Rucker, T. Donald and Martin D. Keller. *Planning Your Medical Career*. Garrett Park, MD: Garrett Park Press, 1986.

200 Ways to Put Your Talent To Work In The Health Field. New York: National Health Council, Inc., 1983.

SOME RELATED ORGANIZATIONS

American Medical Association
535 N. Dearborn Street
Chicago, IL 60610

American Osteopathic Association
212 East Ohio Street
Chicago, IL 60611

American Dental Association
211 East Chicago Avenue
Chicago, IL 60611



I'M INTERESTED IN . . .

METALLURGICAL and MINING ENGINEERING

Metallurgical and mining engineering is the study of the practical application of science, mathematics and energy in the extraction, treatment and processing, as well as the design and development of equipment to manufacturing metals, coal and other non-metallic resources from the earth in an econom-

ical and efficient manner. It involves the research and refinement of these natural materials along with the development of processes to enable the production and discovery of products necessary to the success and comfort of an industrialized society. Students may elect to concentrate in research, extractive engineering, processing, applications, management or other areas.

SOME RELATED OCCUPATIONS

Ceramic Engineer—B
Chemical Engineer—B
Civil Engineer—B
Computer Programmer—B
Construction Engineer—B
Consulting Engineer—B
Electrical Engineer—B
Engineering Educator—B
Environmental Engineer—B
Environmentalist—B

Geological Engineer—B
Geologist—B
Geophysical Engineer—B
Geophysicist—B
Materials Engineer—B
Metallurgical Engineer—B
Metallurgical Engineering Technician—AA
Metallurgist—B
Mining Engineer—B

Nuclear Engineer—B
Petroleum Engineer—B
Pipeline Engineer—B
Plastics Engineer—B
Research Engineer—B
Safety Engineer—B
Sales Engineer—B
Sanitary Engineer—B
Systems Engineer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Developing hobbies and interests related to building items out of metal or other materials, rock and mineral collections, mechanics, etc.; reading publications about engineering or metallurgical topics; attending related lectures and workshops, doing experiments to see how materials react; working part-time or as a

volunteer with a mining company, in a foundry or in a college engineering department; member of a student or professional engineering organization; solving analytic and logic problems; participating in clubs or organizations which require you to make oral presentations and write reports.

SOME RELATED SKILLS

Ability to analyze, organize and interpret scientific data
Ability to work well with others
Able to make appropriate decisions and solve problems
Ability to make keen observations and sound judgments
Aptitude for accurate details, spatial perception and abstract reasoning
Sensitive to economic considerations and human needs

Proficiency in one's area of specialization and knowledgeable of current practices and trends
Proficiency in written and oral communication
Able to conduct and clearly communicate scientific research
Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Able to operate and use information derived from computers

Definitions for less familiar skill statements appear in Appendix B.

METALLURGICAL and MINING ENGINEERING

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Creativity
Achievement
Desire to help others live better
Like challenges

Like seeing ideas developed into
practical use
Curiosity
Imagination

Perseverance
Flexibility
Alertness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

A Career in Metallurgical Engineering and Materials Science. Warrendale, PA: The Metallurgical Society, 1981.

"Engineering." *The World Book Encyclopedia.* 1985 ed.

Introducing . . . an Exciting New World: The World of Metallurgy and Materials Engineering. Metals Park, OH: American Society for Metals.

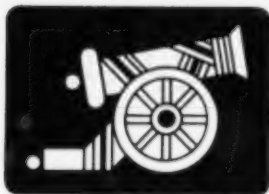
"Metallurgical Engineer." *Career Summary.* Largo, FL: Careers, 1983.

SOME RELATED ORGANIZATIONS

American Society for Metals
Metals Park, OH 44073

National Society of Professional Engineers
1420 King Street
Alexandria, VA 22314

The Metallurgical Society of AIME
420 Commonwealth Drive
Warrendale, PA 15086



I'M INTERESTED IN . . .

MILITARY SCIENCE

Military science is the study of the philosophies, theories and practices of military leadership and warfare. Effective implementation of the principles of military science is considered vital to the protection of a country's citizenry. Military science exposes the student to military history and the nature of war, leadership and management skills, organization, customs and traditions, first aid, life saving and survival techniques, weaponry, marksmanship and equipment use and design, methods of combat, offen-

sive and defensive strategies, communications, etc. The five major concentrations within military science are communications, engineering, logistics, strategy, and tactics. It must be noted that some of the occupations cited below are more specifically related to simulated or actual war environments. However, many of the skills learned in preparation for them (particularly leadership, administration and management skills), along with other related occupations not listed in such areas as engineering, clerical, maintenance and mechanics, are transferable into civilian occupations.

SOME RELATED OCCUPATIONS

Administrative Officer—B

Airplane Engineer—B/V

Airplane Navigator—B/V

Airplane Pilot—B/V

Air Traffic Controller—V

Behavioral Science

Specialist—B/D

Cartographer—AA/V

Career Counselor—B/M

Caseworker—B/M

Computer Programmer—AA

Diver—V

Electronic Technician—AA/V

Engineering Officer—B

Flight Attendant—V

Food and Drug Inspector—AA

Graphic Designer—AA

Human Relations

Counselor—B/M

Infantry Officer—B

Intelligence Specialist—B/D

Interpreter—B

Journalist—AA/B

Medical Laboratory

Technician—AA

Musician—B/V

Public Information

Specialist—AA/B

Radio Equipment

Technician—AA/V

Recreation Worker—AA

Reporter—AA/B

Recruiter—AA/B

ROTC Instructor—B

Ships Pilot—B

Systems Analyst—B

Teacher—B

Topographic Engineer—B

Trainer—AA/B

Weather Observer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participating in a ROTC program; member of a national guard unit; playing games of logic, strategy and warfare; serving in a branch of the armed forces; reading publications related to military service; attending military related lectures and conferences;

viewing war-related TV programs and movies; working part-time or as a volunteer in a police station or as a security guard; visiting military exhibits; participating in competitive team and individual sports.

SOME RELATED SKILLS

Intellectual capacity to do well in most undergraduate and graduate curriculums

Aptitude for leadership

Proficiency for analytical and logical reasoning

Ability to react spontaneously and maintain composure in stressful situations

Proficiency in reading and understanding directions

Ability to make sound judgments and appropriate decisions

Ability to interact with people of differing personalities and backgrounds

Good vision and health

Physical stamina, motor coordination and manual dexterity

Ability to clearly communicate ideas and concepts to others

Ability to motivate and extract loyalty from others

Background in military history, principles and procedures

Definitions for less familiar skill statements appear in Appendix B.

MILITARY SCIENCE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Loyalty
Independence
Security
Achievement
Willingness to follow orders and
take risks; courageous

Respond well to discomfort and
emergencies
Orderly and disciplined
Perseverance
Analytical mind

Competitive drive
Spontaneous
Responsible
Determined

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

- Bradley, Jeff. *Young Person's Guide to Military Science*. Harvard Common, 1983.
- Gordon, Susan. *Your Career in the Military*. New York: Arco, 1983.
- Marrs, Texe. *You and the Armed Forces: Career and Educational Opportunities for a Secure Future*. New York: Arco, 1983.
- Marrs, Texe and Karen Read. *Every Woman's Guide to Military Service*. Orom, UT: Liberty, 1984.
- McGowan, Mary. *Exploring Military Service For Women*. New York: Rosen, 1986.
- Peterson, Gwenn B. *Careers In the United States Merchant Marine*. New York: Lodestar Books, 1983.
- Rafferty, Robert. *Careers In the Military: Good Training For Civilian Life*. New York: Elsevier/Nelson, 1980.
- United States Army. *Army Occupational Handbook*. U.S.A. Army, 1983-84.

SOME RELATED ORGANIZATIONS

Please contact the area Recruiting Office (see "Recruiting" in Yellow Pages of your local telephone directory) of the branch you are interested in. The Army, Air Force, Navy, Marine Corps and Coast Guard can all be called toll-free.

Also, if you have an ROTC program operating in your school or college, an instructor in that program may be able to supply you with referrals and additional information.



I'M INTERESTED IN . . .

NURSING and RELATED SERVICES

Nursing and related services is the study of the direct personal care, support and condition monitoring (usually accompanied by frequent

"hands-on" activities) of those who are sick, injured, handicapped or elderly. Students learn about the day-to-day skills and practices involved in quality patient care. This includes learning about human anatomical

and physiological processes, human growth, development and behavior as well as teamwork, observation and referral, responding to emergencies, health care facility operations, philosophy and management; diet and nutrition; etc. Some of the specialties under nursing and related services are mid-wifery, occupational nursing, public health nursing, physical therapy, occupational therapy, school nursing, private duty nursing and recreational therapy.

SOME RELATED OCCUPATIONS

Art Therapist—B
Athletic Trainer—B
Audiologist—B
Corrective Therapist—B
Director of Nursing—B
General Duty Nurse—AA/B
Head Nurse—B
Industrial Therapist—B
Licensed Practical Nurse—AA

Manual Arts Therapist—B
Music Therapist—B
Nurse Anesthetist—B
Nurse Consultant—B
Nurse Instructor—B
Nurse Midwife—B
Nurse Practitioner—B
Nurse Supervisor—B

Occupational Therapist—B
Office Nurse—AA/V
Physical Therapist—B
Private Duty Nurse—AA/B
Recreational Therapist—B
Registered Nurse—AA/B
School Nurse—B
Speech Pathologist—B/M

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Attending lectures, workshops and conferences related to nursing; member of a health guild, club or advisory board; watching TV programs or movies related to hospitals, nursing or medicine; reading nursing-related publications; member of a professional organization

such as the National League of Nursing (NLN); working part-time or as a volunteer in a hospital, nursing home, health agency or in a college nursing department; actively supporting health care and charitable efforts.

SOME RELATED SKILLS

Aptitude for applied science
Ability to make critical observations, sound judgments and appropriate decisions
Thorough knowledge of nursing and/or related practices and techniques
Proficiency for accurate details
Physical stamina, good vision and manual dexterity
Ability to solve problems

Proficiency in reading, writing and following directions
Understanding of normal human behavior, growth and development
Ability to react spontaneously and maintain emotional and physical composure in stressful situations
Ability to work cooperatively with people of differing backgrounds and personality.

Definitions for less familiar skill statements appear in Appendix B.

NURSING and RELATED SERVICES

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Helping others
Health
Wisdom
Desire to work directly with people

Warm, understanding and friendly
attitude
Sensitive to the needs and pains of
others
Willingness to work irregular hours
and weekends

Patience
Self-confident
Poised
Responsible
Capable

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Anastas, Lila L. *Your Career In Nursing*. New York: National League for Nursing, 1984.

Downs, Florence and Dorothy Brooten. *New Careers in Nursing*. New York: Arco, 1983.

Heron, Jackie. *Exploring Careers In Nursing*. New York: Rosen, 1986.

Hoffman, Vicki. *New Directions For the Professional Nurse: Exploring Your Career Options and Discovering Great Escapes*. New York: Arco, 1984.

Swanson, Barbara. *Careers in Health Care*. Homewood, IL: Dow Jones Irwin, 1984.

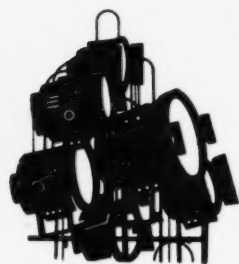
SOME RELATED ORGANIZATIONS

National Student Nurses Association
P.O. Box 56
Pitman, NJ 08071

National League For Nursing
10 Columbus Circle
New York, NY 10019

American Physical Therapy Association
1111 N. Fairfax Street
Alexandria, VA 22314

National Association For Practical Nurse Education
and Practice
10801 Pear Tree Lane, Suite 151
St. Ann, MD 63074



I'M INTERESTED IN . . .

PERFORMING ARTS

Study in the performing arts entails exposure to creative dramatic expression, primarily in front of live audiences. It involves study of all types of

artistic performance in theaters, educational institutions, on television, in movies and out-of-doors. All

major aspects of performance preparation are studied. These include set design, stage set-up, scenery, decorations, light and sound production, costumes, and make-up. Techniques of speaking, acting, and poise are other important areas of concentration. A few of the major specializations include acting, singing, comedy, and dance.

SOME RELATED OCCUPATIONS

Actor/Actress—AA/B
Announcer (radio, TV)—AA/B
Circus Performer—V
Choreographer—B
Comedian—V
Composer—B
Costumer—V
Curator—B
Dancer—V
Dance Instructor—B/V
Dramatic Coach—B

Educator—B/D
Fashion Coordinator—B
Film Director—B
Impersonator—V
Magician—V
Merchandise Displayer—AA
Model—V
Motion Picture Photographer—B
Musician—B
Music Director—B
Music Librarian—B/M

Music Teacher—B/M
Narrator—B
Orchestra Conductor—B/V
Pantomimist—V
Producer—B
Public Relations Specialist—B
Puppeteer—V
Set Designer—B
Singer—B
Stage Manager—B
Theatrical Photographer—AA/B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participation in local theater productions; attending plays, concerts, lectures, and movies; working part-time or as a volunteer for a radio or TV station; joining a choir, glee club, marching band, orchestra, cheer-leading squad, or popular music group; practicing aerobics, modeling, sports; participation in a

talent or variety show, skit or play; joining student council or debate team; serving as assistant in a theater arts or communications department; running for political office or competing in an oratory contest; reading publications related to the performing arts.

SOME RELATED SKILLS

Ability to concentrate and practice intensely for long periods
Ability to speak articulately, listen introspectively, and observe keenly
Good health, physical stamina, and body coordination
Ability to work well under pressure and meet deadlines
Ability to maintain composure when faced with the unexpected

Ability to communicate emotions and ideas creatively
Ability to relate to people of varying backgrounds
Proficiency in memorization
Ability to attract the attention of others
Ability to analyze and interpret the emotions and motives of others

Definitions for less familiar skill statements appear in Appendix B.

THE PERFORMING ARTS

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Aesthetics
Independence
Self-expression and fulfillment
Desire for recognition and influence
Creativity
Ability to adjust to close scrutiny and
accept criticism from the public

Ability to adjust to "ups" and
"downs"
Sense of drama and knack for
"showmanship"
Physical stamina
Patience

Determination
Imagination
Self-discipline
Analytical mind
Dedication
Poise

Definitions for less familiar terms and statements appear in Appendix C.

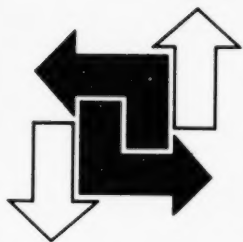
SOURCES FOR FURTHER EXPLORATION

- Berryhill, Ken. *Funny Business: A Professional Guide to Becoming a Comic*. Englewood Cliffs, NJ: Prentice-Hall, 1985.
- Bone, Jan. *Opportunities in Film*. Lincolnwood, IL: VGM Career Horizons, 1983.
- Carr, Kale. *How You Can Star in TV Commercials*. New York: Rawson Wade, 1982.
- Feder, Happy Jack. *The Independent Entertainer: How to be a Successful Clown, Juggler*. Englewood Cliffs, NJ: Prentice-Hall, 1982.
- Field, Shelly. *Career Opportunities in the Music Industry*. New York: Facts On File, 1986.
- Folke, Ann and Richard Harden. *Opportunities In Theatrical Design and Production*. Lincolnwood, IL: VGM Career Horizons, 1984.
- Gearhart, Susan W. *Opportunities in Modeling Careers*. Lincolnwood, IL: VGM Career Horizons, 1984.
- Geradi, Robert. *Opportunities in Music Careers*. Lincolnwood, IL: VGM Career Horizons, 1984.
- Greenberg, Jon W. *Theater Careers: A Comprehensive Guide to Non-Acting Careers in the Theater*. New York: Holt, Rinehart and Winston, 1983.
- Henry, Mari Lyn and Lynne Reyers. *How To Be A Working Actor: The Insider's Guide to Findings Jobs In Theater, Film, and Television*. Evans, 1986.
- Lydon, Michael. *How to Succeed in Show Business By Really Trying*. New York: Dodd Mead, 1985.

SOME RELATED ORGANIZATIONS

Performing and Visual Arts Society
P.O. Box 102
Kinnelon, NJ 07405

Hispanic Institute for the Performing Arts
1629 K Street, N.W., Suite 800
Washington, D.C. 20006



I'M INTERESTED IN . . .

PHILOSOPHY

Philosophy is considered a branch of the language arts and involves the study of the truths or principles underlying all knowledge. Philosophical study involves a continuous attempt to analyze, interpret and logically explain what humans believe, value, and

do. While occupations are generally only indirectly linked to the study of philosophy, a number of other disciplines, avocations and leisure-time activities offer additional attractions for the interested student. Among the major sub-branches are metaphysics (what is real?), logic (what is truth?, what is knowledge?), and axiology (what is good? moral? bad? beautiful?).

SOME RELATED OCCUPATIONS

Advertising Executive—B
Anthropologist—B/D
Arbitrator—B
Archivist—B
Clergy—D
College Administrator—B/D
College Instructor—B/D
Computer Programmer—B
Copy Editor—B
Criminologist—B
Diplomat—B
Editorial Assistant—B

FBI/CIA Agent—B/M
Film Editor—AA
Foreign Correspondent—B
Freelance Writer—B
Historian—B/D
Insurance Agent—B
Journalist—B
Judge—P
Lawyer—P
Lecturer—B/M
Librarian—B/M

Lobbyist—B
Market Research Analyst—B
Personnel Manager—B
Political Scientist—B/D
Public Administrator—B
Psychologist—D
Publisher—B
Research Assistant—B
Social Worker—B/M
Systems Analyst—B
Technical Writer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participation on a debate or forensic team; freelance writing; playing word games and games of strategy; participating in oratory contests; joining a philosophical organization such as the American Philosophical Association; subscribing to professional publications related to philosophy; visiting libraries; working part-

time or as a volunteer research assistant, or in a philosophy department; attending lectures, listening to radio talk shows; participating in political campaigns; joining a student government or student association group.

SOME RELATED SKILLS

Ability to formulate and defend positions
Ability to make critical observations, evaluations and appropriate decisions
Ability to summarize complicated materials and solve problems
Ability to concentrate for long periods of time

Ability to speak articulately and listen objectively
Ability to organize, conduct and clearly explain research
Proficiency in analytical and synthetic reasoning
Broad background of general knowledge
Comprehensive command of grammar and vocabulary

Definitions for less familiar skill statements appear in Appendix B.

PHILOSOPHY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Intellectual growth
Logical thinking and self-expression
Desire for recognition and to influence others
Independence

Tendency to question and seek answers
Tendency to support beliefs with facts and logic

Thoughtfulness
Persuasiveness
Objectivity
Imagination

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Careers for Philosophers. Newark, DE: American Philosophical Association, 1984.

Flores-Esteves, Manuel. *Life After Shakespeare: Careers for Liberal Arts Majors*. New York: Penquin, 1985.

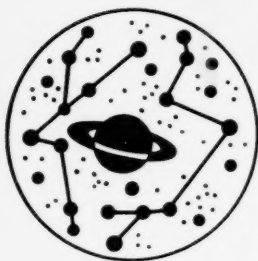
Nadler, Burton. *Liberal Arts Jobs*. Princeton, NJ: Peterson's, 1986.

"Philosophy." *The World Book Encyclopedia*. 1985 ed.

SOME RELATED ORGANIZATIONS

American Philosophical Association
University of Delaware
Newark, DE 19716

Society for Women in Philosophy
c/o Kathryn Pyre Addelson
163 Dudleyville Road
Leverett, MA 01054



I'M INTERESTED IN . . .

PHYSICS

Physics is a major branch of the physical sciences and involves the study of matter and energy. It attempts to find out how and why physical mat-

ter and energy interact as well as to describe force, motion and gravity. It is considered the foundation of science and technology. Physics overlaps and is closely related to astronomy, engineering, chemistry, mathematics, geology, and biology.

SOME RELATED OCCUPATIONS

Aerodynamist—B
Aerospace Engineer—B/D
Aerospace Engineering Technician—AA
Aeronautical Engineer—B
Airplane Pilot—AA/B
Air Traffic Controller—AA/V
Astronomer—B/D
Automotive Engineer—B
Biophysicist—B
Chemical Engineer—B
Chemist—B
Civil Engineer—B

Computer Programmer—B
Curator—B
Educator—B/D
Electrical Engineer—B
Electronics Technician—AA
Environmental Engineer—B
Geographer—B
Geophysicist—B
Industrial Engineer—B
Laboratory Technician—AA
Mathematician—B
Mechanical Engineer—B

Metallurgist—B
Metallurgical Engineer—B
Meteorological Technician—AA
Meteorologist—B
Nuclear Engineer—B/D
Nuclear Medical Technologist—AA
Nuclear Technician—AA
Optical Technician—AA
Physicist—B/D
Physicist Technician—AA
Radiographer—AA
Seismologist—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Joining a photography club, the American Physical Society, the Society of Physics Students, or other physics club; participating in outdoor activities or sports; reading or subscribing to physics or science

publications; computer programming, operating a ham radio, repairing radios, TVs, or stereos; playing board games and doing puzzles; performing lab experiments; solving analytic and logic problems.

SOME RELATED SKILLS

Ability to organize, analyze and interpret scientific data
Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Ability to make critical observations and appropriate decisions
Ability to conduct and clearly explain scientific research

Ability to operate and use information derived from computers
Aptitude for accurate details
Proficiency in questioning and problem solving
Proficiency in reading, writing, memorization and speaking
Strong background in mathematics
Good vision and manual dexterity

Definitions for less familiar skill statements appear in Appendix B.

PHYSICS

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Independence
Intellectual growth
Recognition

Strong desire to know why and
how things work
Fondness for mathematics and
science

Curiosity
Dedication
Imagination
Perseverance

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Easton, Thomas A. *Careers In Science*. Homewood, IL: Dow Jones-Irwin, 1984.

"Physics." *The World Book Encyclopedia*. 1985 ed.

Physics In Your Future. New York: American Physical Society.

Women in Physics. New York: American Physical Society.

SOME RELATED ORGANIZATIONS

American Institute of Physics
335 E. 45th Street
New York, NY 10017

American Physical Society
335 45th Street
New York, NY 10017

Society of Physics Students
American Institute of Physics
335 E. 45th Street
New York, NY 10017



THINK
THIN

©

I'M INTERESTED IN . . .

PHYSIOLOGY

Physiology is a branch of the biological sciences which involves the study of life processes and functions. This study requires the close observation, recording, and analysis of cellular and sub-cellular constructions, tissues, and organs to

understand how they function and why. Research into the way these systems respond within and between organisms, along with environmental influences, is important to physiological study. Major branches of this discipline include plant physiology, animal physiology, cell physiology, and human anatomy and physiology. Physiology also overlaps the areas of chemistry, physics, and mathematics.

SOME RELATED OCCUPATIONS

Anatomist—B
Anesthesiologist—B
Biochemist—B
Biophysicist—B/D
Botanist—B
Cardiologist—D
Chemist—B/D
Cytotechnologist—AA/B
Dental Assistant—AA
Dietitian—B
Emergency Medical Technician—AA
Geneticist—B

Gynecologist—D
Internist—P
Lab Assistant—AA
Medical Assistant—AA
Microbiologist—B/D
Mortician—AA/B
Nurse—AA/B
Nutritionist—B
Operating Room Technician—AA
Osteopathic Physician—P
Pathologist—D
Pediatrician—D
Pharmacist—B

Pharmacologist—B
Philosopher—B
Physician's Assistant—AA/B
Physiologist—B/D
Podiatrist—D
Psychiatrist—D
Radiologic Technician—AA
Respiratory Therapist—AA
Surgeon—P
Toxicologist—B/D
Urologist—D
Veterinarian—D
Zoologist—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Attending science fairs, exhibits and visiting museums or zoos; reading science journals, magazines, books, etc.; joining a health club; doing lab experiments and researching science-related topics; working as a part-time volunteer for the American Red Cross, American

Cancer Society, or a local mental health association, hospital, or nursing home; owning or caring for pets, watching medical shows on television or at the movies; actively or financially supporting blood donor drives or medical research efforts.

SOME RELATED SKILLS

Ability to concentrate for long periods of time
Ability to conduct and clearly explain scientific research
Ability to make critical observations and appropriate decisions
Ability to work under pressure
Good understanding of mathematical principles and basic knowledge of chemistry and physics
Proficiency in reading, writing, speaking, and memorizing

Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Thorough knowledge of basic biological theories and practices
Proficiency in critical thinking, analysis and problem solving
Physical stamina, good vision, and manual dexterity

Definitions for less familiar skill statements appear in Appendix B.

PHYSIOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Creativity
Helpful Attitude
Independence
Intellectual growth
Prestige

Desire to help improve our world
Interest in public health/safety
Strong interest in how and why
living organisms function
Curiosity
Empathy

Endurance
Patience
Persistence
Self-discipline
Thoroughness

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Careers in Physiology. Bethesda, MD: American Physiological Society.

D'Orazio, Leo, and Donald I. Snook, Jr. *Opportunities in Health and Medical Careers*. Lincolnwood, IL: VGM Career Horizons, 1983.

Easton, Thomas. *Careers In Science*. Homewood, IL: Dow Jones-Irwin, 1984.

SOME RELATED ORGANIZATIONS

American Physiological Society
9650 Rockville Pike
Bethesda, MD 20814

Society of General Physiologists
P.O. Box 257
Woods Hole, MA 02543



I'M INTERESTED IN . . . POLITICAL SCIENCE

Political science is the study of government and focuses on its structure and function and the necessity for human social order. Political science study attempts to provide the student with a better understanding of political

parties, interest groups, international relationships, public law, public administration, liberty, freedom, justice, and power. Major sub-branches include political theory and philosophy, comparative government, American government and politics, public administration, international relations and political behavior.

SOME RELATED OCCUPATIONS

Announcer—B
Anthropologist—B/D
Campaign Worker—V
Chamber of Commerce
Manager—B
City Manager—B
Diplomat—B/M
Editor—B
Educator—B/D
FBI/CIA Agent—B/M
Foreign Service Officer—B/M

Geographer—B/D
Government Worker—B
Hospital Administrator—B/M
Judge—P
Labor Relations Specialist—B
Lawyer—P
Lobbyist—B
Mayor—V
Military Officer—B
News Reporter—B
Parole/Probation Officer—B

Penologist—B
Politician—B
Political Consultant—B
Political Scientist—B/D
Public Recreation Director—B
Public Health Official—B
Research Assistant—B
School Administrator—B
Survey Worker—V
Technical Writer—B
Urban Planner—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Attending political rallies or lectures; serving as a part-time worker or volunteer precinct clerk, party worker, or poll watcher; running for or serving in a public school or municipal office; joining a debate or forensic team; participating in fund raising or writing promotional materials for a political campaign; joining a student government; chairing public panel

discussions; working part-time or as a volunteer news-broadcaster for a school radio or TV station; joining a school newspaper staff; participating in a neighborhood association; freelance writing; reading political publications; joining a professional group such as the American Political Science Association.

SOME RELATED SKILLS

Ability to conduct and explain scientific research clearly
Ability to communicate ideas to others
Intellectual capacity to perform well in most undergraduate or graduate curriculums
Ability to relate to people from varying backgrounds
Ability to speak articulately, read comprehensively, and write well

Personal charisma and public appeal
Aptitude for leadership
Ability to organize and interpret social, economic, and political data
Understanding of and sensitivity to community needs
Broad background of general knowledge
Ability to evaluate problems and make appropriate decisions

Definitions for less familiar skill statements appear in Appendix B.

POLITICAL SCIENCE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Desire for recognition and to influence others
Prestige
Tendency to be ambitious and outgoing

Desire to render public service
Willingness to take risks
Poise
Tact

Patience
Perseverance
Flexibility
Competitive drive

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

- Alternative Careers for Political Scientists.* Washington, DC: The American Political Science Association.
- Berman, Elaine. *Your Career in Local, State and Federal Government.* New York: Arco, 1985.
- Career Associates. *Career Choices for Students of Political Science and Government.* New York: Walker and Company, 1985.
- Good, Stephen. *How to Get A Job with the Post Office: Second Edition.* New York: Barnes and Noble, 1985.
- Krannich, Ronald and Caryl Krannich. *The Complete Guide to Public Employment.* Manassas, VA: Impact, 1986.
- Phillips, David A. *Careers in Secret Operations: How to Be a Federal Intelligence Officer.* Frederick, MD, 1984.
- Shanahan, William F. *101 Challenging Government Jobs for College Graduates.* New York: Arco, 1986.
- Sigel, Lois S. *Exploring Careers in Public and Community Health.* New York: Rosen, 1984.
- Zehring, John. *Careers in State and Local Government.* Garrett Park, MD: Garrett Park Press, 1980.

SOME RELATED ORGANIZATIONS

Academy of Political Science
2852 Broadway
New York, NY 10025

American Political Science Association
1527 New Hampshire Avenue, N.W.
Washington, D.C. 20036

National Conference of Black Political Scientists
Department of Political Science
University of Illinois
Urbana, IL 61801

Women's Caucus for Political Science
c/o Diane Foweckos
University Plaza
Georgia State University
Atlanta, GA 30307



I'M INTERESTED IN . . .

PSYCHOLOGY

Psychology is considered the study of human and animal behavior. It seeks to understand and explain both normal and abnormal behavior, mental ability, perception, development and individual differences. In addition, psychological study explores human

emotions, thoughts, and motives. Among the major sub-branches within psychology are educational psychology, social psychology, psychometrics, developmental psychology, comparative psychology, and the personality of psychology, abnormal psychology, applied psychology, differential psychology, statistics, and child psychology.

SOME RELATED OCCUPATIONS

Advertising Manager—B
Criminologist—B
Editor—B
Educator—B/D
Employment Counselor—B
Guidance Counselor—B/M
Job Analyst—B
Judge—P
Lawyer—P
Market Research Analyst—B
Mental Health Worker—B

Minister—P
Occupational Therapist—B
Penologist—B
Personnel Manager—B
Police Officer—AA
Probation Officer—B
Psychiatric Nurse—B
Psychiatric Social Worker—B/M
Psychiatrist—P
Psychologist—D

Psychometrist—B/M
Public Relations Specialist—B
Sales Worker—B
Social Worker—B/M
Sociologist—B/D
Special Educator Instructor—B/M
Speech Pathologist—B
Technical Writer—B
Vocation Rehabilitation
Counselor—B/M

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Serving as a peer counselor; working part-time or as a volunteer in a mental health agency, psychology department, or senior citizen home; developing promotional materials; assisting with college recruitment efforts; serving on a student council or as a tutor; participating in Junior Achievement; serving as a leader

or chairperson in a community or school organization; working part-time or as a volunteer in an advertising firm, sales department, special education class, or day care center; serving as a camp counselor or hotline assistant; writing freelance; reading psychology-related publications.

SOME RELATED SKILLS

Ability to interpret and clearly explain psychological research and tests of all types
Proficiency in reading comprehension, writing, and speaking
Understanding of human development and behavior
Ability to observe and analyze introspectively

Sensitivity to and understanding of others
Ability to evaluate personal problems and make appropriate decisions
Intellectual capacity to do well in most undergraduate or graduate college curriculums
Proficiency in interpersonal communication

Definitions for less familiar skill statements appear in Appendix B.

PSYCHOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Intellectual understanding
Helpfulness
Mental and emotional well-being

Sensitivity to the inconsistencies
of human behavior
Desire to continue learning
throughout life
Warm and personable character

Tact
Inquisitiveness
Integrity
Patience

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Baxter, Neale A. *Opportunities in Counseling and Development*. Lincolnwood, IL: VGM Career Horizons, 1986.

Career Associates. *Career Choices for Students of Psychology*. New York: Walker and Company, 1985.

Careers in Psychology. Washington, DC: American Psychological Association, 1982.

"Psychologist." *Career Brief*. Largo, FL: Careers, 1984.

Super, Donald and Charles Super. *Opportunities in Psychology*. Skokie, IL: National Textbook Company, 1982.

SOME RELATED ORGANIZATIONS

American Psychological Association
1200 17th Street, N.W.
Washington, D.C. 20036

Association of Black Psychologists
P.O. Box 55999
Washington, D.C. 20040

National Hispanic Psychological Association
c/o Floyd Martinez
Los Angeles County Dept. of Mental Health
2415 W. Sixth Street
Los Angeles, CA 90057



I'M INTERESTED IN . . .

RECREATION and LEISURE

Recreation and leisure is a field in which the focus is on the design, management, implementation, supervision, expansion and necessity of recreational and leisure-time activities for individuals and groups of all ages and backgrounds. Recreation and leisure-time study encompasses a broad range of events and activities related to camping, natural

resources, outdoor activities, tourism, amusement parks, sporting events, and community recreation programs. A few of the many specialties within this growing field are gerontology, youth organizations, parks and forestry, public recreation, tourism, commercial enterprising, therapeutic recreation, professional sports, resource management, recreation and parks administration.

SOME RELATED OCCUPATIONS

Armed Forces Recreation
Leader—AA
Athletic Trainer—B
Camp Director—B
Carnival Game Operator—V
Church Recreation Director—AA
Coach—B
College Recreation
Instructor—B/M
Community Center
Director—AA/B

Concert Promoter—B
Dance Instructor—B/V
Dance Therapist—B
Fitness Instructor/Specialist—B
Game Official—B
Industrial Recreation Specialist—B
Municipal Recreation Director—B
Music Instructor—B
Music Therapist—B
Park Ranger—B

Physical Education Instructor—B
Playground Leader—AA
Prison Recreation Specialist—B
Professional Athlete—V
Recreation Facility Manager—B
Recreation Therapist—B
Resort Manager—B
Ski Instructor—V
Tour Guide—V
YMCA/YWCA Worker—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Playing or participating in sports; working part-time or as a volunteer camp counselor, at a fitness club, playground or similar recreational facility; doing physical and outdoor activities; serving as part-time coach, official, or scorer, reading publications related to

recreation, sports, health and fitness; organizing and participating in community recreational activities; attending lectures and workshops related to recreation and leisure; serving as an aide in a school physical education or recreation department.

SOME RELATED SKILLS

Ability to relate to and interact with people of varying ages and backgrounds
Ability to lead, supervise and direct others
Ability to react spontaneously and maintain emotional composure in stressful situations
Understanding of human nature
Good health, vision and physical stamina

Ability to solve problems and make appropriate decisions
Proficiency in written and oral communication
Ability to organize and coordinate activities
General knowledge of recreational and leisure-time theories and practices

Definitions for less familiar skill statements appear in Appendix B.

RECREATION and LEISURE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Pleasure
Health
Achievement
Emotional well-being

Sensitive to the human need for
recreation and balance
Possess a good sense of humor and
fondness for being around people
Friendly

Tactfulness
Dedication
Patience
Outgoing

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

- Clary, Jack. *Career In Sports*. Chicago, IL: Contemporary Books, 1982.
- Figler, Stephen and Howard Figler. *The Athletes Game Plan for College and Career*. Princeton, NJ: Peterson's, 1984.
- Heitzman, Ray. *Opportunities in Sports Medicine*. Lincolnwood, IL: VGM Career Horizons, 1984.
- Jensen, Clayne R. and Jay H. Naylor. *Opportunities in Recreation and Leisure*. Lincolnwood, IL: VGM Career Horizons, 1984.
- Odums, R. I. *Career Guide to Sports Officiating*. Cleveland, OH: Circular Limited, 1984.
- "Recreation/Parks Administrator." *Career Brief*. Largo, FL: Careers, 1980.
- Rosenbaum, Jean and Mary Prine. *Opportunities in Fitness Careers*. Lincolnwood, IL: VGM Career Horizons, 1986.

SOME RELATED ORGANIZATIONS

American Camping Association
Bradford Woods
Martinville, IN 46151

National Recreation and Park Association
Division of Professional Services
3101 Park Center Drive
Alexandra, VA 22302

American Alliance for Health, Physical
Education, Recreation and Dance
1900 Association Drive
Reston, VA 22091



I'M INTERESTED IN . . .

RELIGION and THEOLOGY

Religion and theology is the study of human beliefs, practices and worship activities as it relates to a supreme power or diety. Students are familiarized with religious history, doctrines, theological concepts, and worship practices as well as concepts related to faith, love,

patience, longsuffering, forgiveness, etc. Focus may concentrate on a particular denomination or faith or possibly in a specialization such as youth work, religious education, mission work, clerical studies, administrative and leadership, evangelism and outreach.

SOME RELATED OCCUPATIONS

Associate Pastor—P
Campus Minister—P
Campus Religious Coordinator—D
Chaplain—D
Church Building Engineer—V
Church Camp Director—B
Church Secretary—M
Denominational Executive—P
Director of Religious Education—B
Director of Preschool—B
Director of Social Service—B

Evangelist—P
Guidance Counselor—B/M
Librarian—B
Minister of Music—B
Missionary—P/V
Nursing Home Director—B
Pastor—P
Priest—P
Rabbi—P
Religious Bookstore Worker—V
Religious Educational Administrator—B

Religious Education Teacher—B
Religious Researcher—B
Religious Staff Writer—B
Religious Writer—B
Salvation Army Worker—V
Seminary Administrator—B/D
Social Worker—B/M
Theological Professor—P/D
Youth Minister—B/P
YMCA/YWCA Worker—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Frequent participation in local church activities; serving as a part-time worker or as a volunteer in a religious institution or bookstore; attending religious retreats, conferences, revivals and workshops; listening to religious lectures, tapes and music; participating in and financially donating to religious and charitable

endeavors; visiting those who are sick, in jail or shut-in; member of a religious club or fellowship group; attending bible study; reading publications related to religion or theology; viewing religious programs on TV; engaging in activities which help others.

SOME RELATED SKILLS

Knowledgeable and proficient in one's area of personal ministry
Ability to interact with people of varying age and backgrounds
General knowledge of the practices, procedures, guidelines and doctrine of one's faith
Ability to persuade and influence others
Ability to carry out and integrate one's occupational responsibilities with one's religious faith

Proficiency in reading, writing and oral communication
Proficiency in interpersonal communication
Understanding of human spiritual and social needs
Sensitivity to and compassion for others
Ability to make appropriate decisions and solve problems

Definitions for less familiar skill statements appear in Appendix B.

RELIGION and THEOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Religious faith
Desire to do God's will and love
one's fellowman
Wisdom
Morality
Willingness to continue learning
throughout life

Possess an inner spiritual conviction
or "calling" to serve in a religious
capacity
Sensitivity and concern for the
spiritual welfare of others

Dedication
Perseverance
Integrity
Faithful
Determined

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATIONS

Nelson, John. *Opportunities in Religious Service*. Lincolnwood, IL: VGM Career Horizons, 1980.

"Protestant Clergy." *Carer Brief*. Moravia, NY: Chronicle Guidance Publications, 1981.

"Rabbi." *Career Summary*. Largo, FL: Careers, 1982.

"Religious Workers." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.

"Roman Catholic Priest." *Career Summary*. Largo, FL: Careers, 1981.

SOME RELATED ORGANIZATIONS

Intercisto
The Human Resource Specialists
19303 Fremont Avenue, North
Seattle, WA 98133

National Council of Churches
Professional Church Leadership, Rm. 710
475 Riverside Drive
New York, NY 10115

In addition, you may want to check with
your local minister, rabbi, priest or write to
your denomination's or organization's
national office for church occupational
information.



I'M INTERESTED IN . . .

SECRETARIAL SCIENCE

Secretarial science is the study of the clerical, information management, and human relating skills associated with and necessary for efficient traditional as well as

automated office practices. Students are made aware of secretarial responsibilities such as typing, filing,

stenography, word processing and public relations. In addition, secretarial science students are exposed to information management, organization, coordination, problem-solving, decision-making, accounting methods, techniques of skillful communication and general office procedures. Specialties in this area are legal, medical, executive, technical, and school secretarial sciences.

SOME RELATED OCCUPATIONS

Accounting Clerk—V
Administrative Assistant—AA
Administrative Assistant Secretary—AA
Bankteller—AA
Bookkeeper—V
Cashier—V
Clerk/Typist—V
Court Reporter—AA
Dental Assistant—AA

Educational Secretary—AA
Executive Secretary—AA/B
File Clerk—V
Foreign Service Secretary—AA
General Office Clerk—V
Keypunch Operator—V
Legal Secretary—AA
Medical Assistant—AA
Medical Assistant Secretary—AA
Office Manager—AA/B

Paralegal Assistant—AA
Private Secretary—AA
Receptionist—V
Records Manager—AA
Secretary—V/B
Stenographer—AA
Telephone Operator—V
Typist—V
Word Processor—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer student aide, secretarial assistant or office clerk; reading publications related to secretarial science; volunteering as an office helper in one's local church, neighborhood association, club or community agency; member of a student or professional secretarial business or office

organization; writing reports and making oral presentations; participating in conversation with others; serving as an editor of a school newspaper; providing a typing, resume or editing service; organizing social events.

SOME RELATED SKILLS

Good vision and health
Proficiency for memorization, accurate details and clerical perception
Ability to work independently as well as interact effectively with people of varying backgrounds
Able to respond spontaneously, work with distractions and meet deadlines
Able to take the initiative, make sound judgments and appropriate decisions, and solve problems
Ability to operate and use information derived from computers

High proficiency in receptionist, typing and general office skills
Proficiency in operating electronic office equipment
Knowledgeable of practices and trends in office procedures
Ability to understand and interpret written and oral communication
Proficiency in spelling, grammar, punctuation and editing
Able to maintain emotional composure during stressful circumstances

Definitions for less familiar terms and statements appear in Appendix C.

SECRETARIAL SCIENCE

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Justice
Aesthetics
Security
Recognition
Achievement
Tendency toward neatness and flexibility

Pleasant, positive and friendly attitude
Possess an "air of professionalism"
Willingness to perform some tasks which may be repetitive or boring

Organized
Self-confident
Dependable
Competent
Tactfulness
Poised

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Ettinger, Blanche. *Opportunities in Secretarial Careers*. Lincolnwood, IL: VGM Career Horizons, 1984.

Hutchinson, Betty. *Secretarial Practice Made Simple*. New York: Doubleday, 1985.

Morrow, Jodie Berlin and Myrna Lebov. *Not Just A Secretary*. New York: Wiley Press, 1984.

Munday, Marianne. *Opportunities in Word Processing Careers*. Lincolnwood, IL: VGM Career Horizons, 1985.

Porat, Frieda and Mimi Will. *Dynamic Secretary: A Practical Guide to Achieving Success as an Executive Assistant*. Englewood Cliffs, NJ: Prentice-Hall, 1983.

"Secretary." *Career Brief*. Largo, FL: Careers, 1985.

SOME RELATED ORGANIZATIONS

Professional Secretaries International
301 E. Armour Blvd.
Kansas City, MO 64111-1299

Office Education Association
5454 Cleveland Avenue
Columbus, OH 43229



I'M INTERESTED IN . . .

SOCIAL WORK

Social work is the study of the formal processes which have been instituted to assist those in our society who are unable to cope with serious interpersonal and social

problems. Study in this field is aimed at helping the needy and disadvantaged in such areas as child and

drug abuse, juvenile delinquency and crime, hunger and financial budgeting, unemployment, health care and mental illness, disabilities, education, parenting, family problems, house repair, etc. Some of the main areas of specialization are health care and mental health, school, family services, child welfare, drug abuse, gerontology, clinical and occupational.

SOME RELATED OCCUPATIONS

Anthropologist—B/D
Career Counselor—B/M
Child Welfare Worker—B
Church Worker—B
Community Service Agency
Director—B

Cooperative Extension Worker—B
Drug Rehabilitation Counselor—B
Economist—B
Family Services Social Worker—B
Gerontologist—B/D
Health Care Worker—B

Historian—B
Home Economist—B
Human Services Worker—B
Market Research Analyst—B
Marriage Counselor—B
Medical Social Worker—B
Mental Health Worker—B
Minister—P
Peace Corps/VISTA Volunteer—B
Police Officer—AA
Probation Officer—B
Psychiatric Social Worker—B/M

Psychologist—B/D
School Counselor—B/M
School Psychologist—B/D
School Social Worker—B/M
Social Science Educator—B/D
Social Service Aide—AA
Sociologist—B/D
Special Education Teacher—B
Survey Worker—V
Technical Writer—B
Vocational Rehabilitation
Counselor—B/M

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer in a community social agency; participating in charitable outreach endeavors and church activities; serving as a peer counselor, tutor or hotline assistant; donating money to social concerns, reading publications related to

social problems and issues; member of a professional organization such as the National Association of Social Workers, Inc.; attending lectures and conferences related to social work; participating in a Big Brother/Big Sister Program.

SOME RELATED SKILLS

Understanding of human behavior and knowledge of community services
Familiarity with social work theories, practices and trends
Ability to interact with people of differing backgrounds in various situations
Proficiency in interpersonal communication
Intellectual capacity to do well in most undergraduate and graduate college curriculums

Proficiency in reading comprehension, writing and speaking
Ability to respond spontaneously and maintain composure in stressful situations
Ability to keenly observe, evaluate and solve problems
Ability to conduct and explain social research clearly
Ability to make appropriate decisions and sound judgments

Definitions for less familiar skill statements appear in Appendix B.

SOCIAL WORK

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Helping others directly
Religious faith
Desire for recognition and appreciation from others
Desire to work directly with those experiencing social problems

Sensitive to the needs and pains of others
Able to adapt to unpleasant and stressful environments
Patience

Resourcefulness
Empathy
Tact
Integrity
Discrete

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

- DeRidder, Margaret Djerf. *New Career Opportunities in Health and Human Services*. New York: Arco, 1984.
- "Social and Recreation Workers." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.
- "Social Workers." *Career Brief*. Largo, FL: Careers, 1981.
- The Many Career Opportunities in Social Work*. Silver Spring, MD: National Association of Social Workers, 1983.
- Wesley, Roland. *So You Want to Be in the Helping Profession As a Community Organizer?* Saratoga, CA: Century Twenty-One Publishing, 1981.

SOME RELATED ORGANIZATIONS

National Association of Social Workers, Inc.
7981 Eastern Avenue
Silver Spring, MD 20910

Council on Social Work Education
1744 R Street, N.W.
Washington, D.C. 20009



I'M INTERESTED IN . . .

SOCIOLOGY

Sociology is the study of social life and focuses on the interaction between human groups and institutions and their influences on each other. Sociology ranges from the study of relationships in family units in the most primitive cultures to the research of

large bureaucratic institutions in major industrialized nations. Among the specialties within sociology are criminology, demography, cultural traditions, family relations, social psychology, gerontology, social welfare, race relations, education, social status, and social change.

SOME RELATED OCCUPATIONS

Anthropologist—B/D
Case Worker—AA
Church Worker—D
City Manager—B
Coach—B
Consultant—B
Counselor—B/M
Crimnologist—B
Demographer—B
Economist—B
Educator—B/D
Funeral Director—AA/B
Geographer—B

Gerontologist—B
Historian—B/D
Hospital Administrator—B/D
Labor Relations Specialist—B
Lawyer—P
Market Research Analyst—B
Minister—P
Missionary—P/V
Peace Corps/VISTA Volunteer—B
Personnel Manager—B
Police Officer—AA
Political Scientist—B/D

Probation Officer—B
Psychologist—B/D
Public Administrator—B
Public Relations Manager—B
Research Assistant—B
Recreation Worker—AA
Social Worker—B/M
Sociologist—B/D
Survey Worker—AA/B
Urban Planner—B
Human Services Worker—B
Writer—B

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Participating in charitable outreach endeavors; joining church activities; donating money to social concerns; working as a part-time or volunteer peer counselor in a day care center or community service agency; organizing games, parties, or get-togethers; joining a pro-

fessional organization such as the American Sociological Association; serving as a camp counselor, on a school board, or as a social research aide; free-lance writing, reading social-issues publications; joining a school or community club.

SOME RELATED SKILLS

Proficiency in interpersonal communication
Intellectual capacity to do well in most undergraduate and graduate college curriculums
Ability to conduct and explain sociological research clearly
Ability to interact with people of different backgrounds in various situations

Knowledge of community resources
Ability to maintain composure in stressful situations
Proficiency in reading comprehension, writing, and speaking
Ability to evaluate problems and make appropriate decisions

Definitions for less familiar skill statements appear in Appendix B.

SOCIOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Desire for recognition and
appreciation from others
Helpfulness
Religious faith

Strong interest in human problems
and events
Sensitivity to and understanding of
social problems
Desire to solve social problems

Resourcefulness
Empathy
Tact
Integrity

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Careers in Sociology. Washington, DC: American Sociological Association, 1977.

Martin, Gail M. "Social Studies and Your Career." *Occupational Outlook Quarterly*, 27, 1983: 26-28.

"Sociologist." *Career Summary*. Largo, FL: Careers, 1983.

"Sociology." *The World Book Encyclopedia*. 1985 ed.

The Many Careers in Social Work. Silver Spring, MD: National Association of Social Workers, 1983.

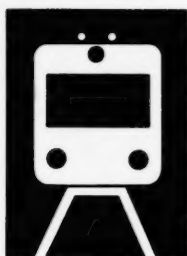
SOME RELATED ORGANIZATIONS

American Sociological Association
1771 N Street, N. W.
Washington, D.C. 20036

Association of Black Sociologists
P.O. Box 55999
Washington, D.C. 20040

National Association of Social Workers
7891 Eastern Avenue
Silver Spring, MD 20910

Women in Society
c/o Department of Sociology
James Madison University
Harrisburg, VA 22807



I'M INTERESTED IN . . .

TRANSPORTATION (OPERATING VEHICULAR OR MOBILE EQUIPMENT, DRIVING, ETC.)

Transportation is the field of study which focuses on the movement of people, materials and equipment from one place to another. The logistics required for the numerous methods of transportation in an industrialized society are complex. Study in transportation concentrates on how automobiles, buses, trucks, trains, waterways, airplanes, pipelines

and industrial equipment are scientifically, technologically and creatively manipulated to effectively meet the location needs and deadlines of materials and people. Students may elect to specialize in such transportation areas as trucking, automobiles, busing, railroad transportation, waterways, construction machine operating, industrial machine operating, aircraft, etc.

SOME RELATED OCCUPATIONS

Airplane Pilot—AA/B
Air Traffic Controller—AA
Ambulance Driver—V
Busdriver—V
Chauffeur—V
Coal Pipe Line Operator—V
Deep Submergence Vehicle
Operator—AA
Dispatcher—AA

Driving Instructor—V
Educator—B/D
Ferryboat Operator—V
Industrial Truck Operator—V
Locomotive Engineer—V
Merchant Marine Officer—AA/B
Motorboat Operator—V
Oil Pumper—V

Operating Engineer—V
Physical Distribution Manager—B
Service Station Worker—V
Taxi Driver—V
Traffic Manager—B
Train Conductor—V
Transportation Engineer—B
Truckdriver—V

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Working part-time or as a volunteer in a service station, as a parking attendant or at a truck, bus or airport terminal; engaging in activities which involve moving, hauling or driving; reading publications related to transportation; developing hobbies, collec-

tions and interests around model cars, trains, vehicular or mobile machines, etc.; participating in or visiting racing events, car, truck or boat shows and exhibits; operating farm equipment.

SOME RELATED SKILLS

Ability to clearly understand and practically apply operational instructions for vehicular or mobile equipment
Proficiency in manual dexterity and mechanical manipulation
Aptitude for accurate details
Knowledge of transportation and safety codes and regulations as they pertain to one's specialty area(s)

Good health and physical stamina
Good vision, color perception and eye-hand-foot coordination
Ability to give and understand directions
Ability to make keen observations, sound judgments and appropriate decisions
Ability to work under pressure and meet deadlines

Definitions for less familiar skill statements appear in Appendix B.

TRANSPORTATION

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Power
Adventure
Achievement
Skill
Able to adapt to stressful situations
and awkward positions

Enjoy and appreciate the
importance of moving vehicles/
equipment/maintenance, etc.
Enjoy challenges
Patience

Responsibleness
Dependable
Competent
Endurance

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Cardoza, Anne and Suzee Vlk. *Aerospace Careers Handbook*. New York, NY: Arco, 1985.

Human Side of Railroading. Washington, DC: Association of American Railroads.

Meet the Proud Crowd. Washington, DC: American Trucking Association.

Paradis, Adrian A. "Opportunities in Transportation Careers." Lincolnwood, IL: VGM Career Horizons, 1984.

Prusinski, Robert Paul. *How to Launch A Career in Flying*. Waukesha, WI: Third Pyramid, Inc., 1984.

Transportation and Materials Moving Occupations." *Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, 1986-87.

SOME RELATED ORGANIZATIONS

Air Transport Association of America
1709 New York Avenue, N.W.
Washington, D.C. 20006

American Trucking Association
2200 Mill Road
Alexandria, VA 22314

Association of American Railroads
50 F Street N.W.
Washington, D.C. 20001

National Maritime Union
346 W. 17th Street
New York, NY 10011

United Transportation Union
14600 Detroit Avenue
Cleveland, OH 44107



I'M INTERESTED IN . . .

ZOOLOGY

Zoology is a major branch of the biological sciences and involves the study of animals. Zoology ranges from the sub atomic and cellular level of the smallest organism up to the largest water-based mammal. Zoological study focuses on embryonic development, structure, function of body parts, habitat and ecologi-

cal interactions with other living organisms. Specializations within this subject include embryology, cytology, ecology, entomology, ornithology, anatomy, physiology, paleontology, genetics, herpetology, parasitology, mammalogy, marine biology, and wildlife/ fisheries biology.

SOME RELATED OCCUPATIONS

Animal Breeder—V
Animal Control Officer—AA
Animal Lab Technician—AA
Biochemist—B
Cattle Rancher—B/V
Conservationist—B
Cooperative Extension Worker—B
Curator—B
Ecologist—B
Educator—B
Farmer—B/V
Farm/Ranch Manager—B/V
Fishery Biologist—B
Forester—B
Forest Technician—AA

Geneticist—B
Humane Society Worker—AA
Kennel Operator—V
Laboratory Technician—AA
Marine Biologist—B
Microbiologist—B
Museum/Zoo Worker—AA
Nature Photographer—AA/B
Nutritionist—B
Oceanographer—B
Park Naturalist—B
Park Ranger—B
Pathologist—B/D
Pest Control Worker—AA

Pet Shop Manager—V
Pharmacologist—B/D
Physiologist—B
Public Health Specialist—B
Range Manager—AA/B
Science Librarian—B
Science Writer—B
Taxonomist—B
Veterinarian—P
Veterinary Assistant—B
Veterinary Technician—AA
Wildlife Biologist—B
Zoo Keeper—AA/B
Zoologist—B/D

Definitions for less familiar occupations appear in Appendix A.

SOME RELATED AVOCATIONAL and LEISURE-TIME ACTIVITIES

Browsing through 4-H exhibits, pet shops, and science displays; attending animal shows or the circus; membership in zoological societies, Future Farmers of America, wildlife preservation groups, or the Humane Society; visiting aquariums, museums, zoos, and nature centers, hiking, camping, nature photography, bird watching, fishing, horse-back riding; owning and

caring for pets; working part-time or as a volunteer for the American Society for the Prevention of Cruelty to Animals, the Humane Society, or a national park, forest, zoo, or veterinary office; watching animal shows on TV or at the movies, reading animal-related publications; collecting shells, butterflies, insects, etc.

SOME RELATED SKILLS

Proficiency in observing, collecting and analyzing data
Ability to concentrate for long periods of time
Proficiency in reading, writing, speaking and memorization
Ability to conduct and clearly explain scientific research
Proficiency in problem solving and decision making

Proficiency for accurate details
Ability to work with and relate to animals
Intellectual capacity to perform well in most undergraduate or graduate college curriculums
Thorough knowledge of general biology
Good health, physical stamina, agility and manual dexterity.

Definitions of less familiar skill statements appear in Appendix B.

ZOOLOGY

SOME VALUES and PERSONAL ATTRIBUTES OFTEN ASSOCIATED WITH THIS AREA

Achievement
Helping others
Creativity
Courage, respect and
determination

Deep appreciation and kindness
towards animals
Interest in animal protection and
preservation
Curiosity

Endurance
Patience
Perseverance
Self-control

Definitions for less familiar terms and statements appear in Appendix C.

SOURCES FOR FURTHER EXPLORATION

Careers in Animal Biology. Thousand Oaks, CA: American Society of Zoologists.

Lee, Mary P., and Richard Lee. "Opportunities in Animal and Pet Care Careers." Lincolnwood, IL: VGM Career Horizons, 1984.

O'Connor, Karen. *Maybe You Belong in a Zoo!: Zoo and Aquarium Careers*. New York: Dodd, Mead and Co., 1982.

Oleksy, Walter. *Careers in the Animal Kingdom*. New York: Julian Messner, 1980.

Ricciuti, Edward. *They Work With Wildlife*. New York: Harper & Row, 1983.

"Zoologist." *Career Brief*. Largo, FL: Careers, Inc., 1981.

SOME RELATED ORGANIZATIONS

American Society of Zoologists
Box 2739
California Lutheran College
Thousand Oaks, CA 91360

American Association of Zoological
Parks and Aquariums
Route 88
Oglebuy Park
Wheeling, WV 26003

APPENDIX A

DESCRIPTION OF SELECTED OCCUPATIONS

Most of the occupational definitions cited are based on information provided in the *Dictionary of Occupational Titles* (DOT) and the *Occupational Outlook Handbook*. However, in many instances, definitions have been either shortened, added to, rearranged or simplified for the sake of clarity. For a more comprehensive and detailed list of occupational definitions, please consult the *Dictionary of Occupational Titles*.

- ABTRACTOR**—A worker who analyzes pertinent legal or insurance details or section of statute or case law to summarize for purposes of examination, proof, or ready reference—may specialize as a Title Examiner.
- ACCOUNTANT**—A professional worker who directs and coordinates activities and personnel involved with examining, analyzing and interpreting accounting records or procedures for the purpose of giving advice or preparing reports—may specialize in budget, cost, management, public, tax, internal, etc.
- ACCOUNT EXECUTIVE (Advertising)**—A professional who plans, coordinates and directs an advertising campaign for the clients of an advertising agency.
- ACCOUNTING CLERK**—A clerical worker who performs any combination of routine calculating, posting and verifying duties to obtain primary financial information for use in maintaining accounting records.
- ACTIVITIES SUPERVISOR**—A recreation therapist who specializes in the organization, direction and supervision of recreational activities for those individuals who are ill or disabled to assist in their overall rehabilitation.
- ACTUARY**—A professional who applies knowledge of mathematics, probability, statistics, principles of finance and business to problems in life, health, social and casualty insurance, annuities and pensions.
- ACQUISITIONS LIBRARIAN**—A librarian who selects and orders books, periodicals, films and other materials for a library.
- ADJUDICATOR**—A government worker who adjudicates (gives an opinion on) claims filed by the government against individuals or organizations.
- ADMINISTRATIVE EXAMINER**—A worker who supervises and oversees polygraph examiners who question and screen individuals to detect deception or to verify truthfulness using polygraph equipment and techniques.
- ADMIRALITY LAWYER**—A professional lawyer who specializes in law applicable to matters occurring on inland navigable waters or on the high seas.
- AERODYNAMIST**—An engineering specialist who plans and conducts the analyses of aerodynamic, thermodynamic, aerothermodynamic and aerophysics concepts systems and designs to resolve problems and determine suitability and application to aircraft, etc.
- AERONAUTICAL ENGINEER**—An engineer who applies engineering principles and techniques to design, develop and test aircraft, space vehicles, surface effect vehicles and missiles.
- AEROSPACE ENGINEER**—An engineer who designs, develops, tests and helps produce commercial and military aircraft, missiles and spacecraft.
- ARCHIVIST**—A professional worker who appraises and edits permanent records and historically valuable documents and participates in research activities based on archival materials and directs the safekeeping of archival documents and materials.
- ART THERAPIST**—A professional health care specialist who plans, coordinates and supervises art techniques, projects and programs to assist in the rehabilitation of mentally ill and physically disabled patients.
- ASTROPHYSICIST**—A physicist who specializes in the study of the physical aspects of the heavenly bodies or space such as the sun, stars, planets, comets, etc.
- AUDIOLOGIST**—A professional therapist who specializes in diagnostic evaluation of hearing, prevention, research, habilitative and rehabilitative services for hearing problems and related disorders.
- AUDITOR**—An accounting professional who examines or audits financial records, controls and

operating procedures to determine effectiveness and efficiency—may be designated, Internal Auditor, External Auditor, County Auditor, Tax Auditor, etc.

BACTERIOLOGIST—See "Microbiologist."

BALIFF—A court officer who maintains order in a courtroom during trials and guards the jury from outside contact—can arrest persons violating law and is responsible for overall security.

BAR EXAMINER—A professional worker who determines the qualifications of candidates seeking admission to the practice of law—prepares written exams, corrects and marks papers, announces those passing and makes recommendations.

BIBLIOGRAPHER—A professional worker who compiles lists of books, periodicals, articles and audio-visual materials on specialized subjects.

BIOCHEMIST—A professional scientist who studies chemical processes of living organisms. Biochemists conduct research to determine the influence of foods, drugs, serums and other substances on tissues and vital processes of living organisms.

BIOGRAPHER—A historian who specializes in reconstruction, in narrative form, of a career or phase in the life of an individual.

BIOMEDICAL ENGINEER—An engineer who specializes in using medical and biological ideas and principles in the design, developed production and supervision of medical equipment and devices.

BIOMEDICAL EQUIPMENT TECHNICIAN—A worker who specializes in the inspection, maintenance, calibrations and modifications of electronic, electrical, mechanical, hydraulic and pneumatic equipment and instruments used in medical therapy.

BIOPHYSICIST—A biological scientist who studies the physical principles of living cells and organisms, their electrical and mechanical energy, and related phenomena.

BIOSTATISTICIAN—See "Statistician."

BLACKSMITH—A worker who forges and repairs various metal articles such as tongs, edged tools, hooks, chains, machine and structure components and agricultural articles as specified by a work order.

BLOODBANK SPECIALIST—A health care worker who specializes in both simple and advanced blood techniques such as drawing blood, classifying, collection and transfusion, testing, evaluation, establishment of programs to preserve and store blood and other related activities.

BOILERMAKER—A worker, following blueprints, who assembles and analyzes defects in and repairs boilers, pressure vessels, tanks and vats using power and hand tools.

BOOKBINDER—A worker who cuts, sews and glues components to bind books, using a sewing machine, handpress and a handcutter.

BOTANIST—A biological scientist who studies development and life processes, physiology, heredity, environment, distribution, anatomy, morphology and the economic value of plants for application in such fields as agronomy, forestry, horticulture and pharmacology.

BRICKLAYER (Concrete-Brick Mason, etc.)—A construction worker who specializes in laying building materials such as brick, structural tile, concrete cinder, glass, gypsum and terra cotta block to construct or repair walls, partitions, arches, sewers and other structures.

BUILDING CONTRACTOR—See "Contractor."

BUYER—A professional worker who purchases merchandise or commodities for resale—inspects, selects, orders, authorizes payment for and may price items for resale.

CABLE SPLICER—A worker who splices overhead, underground or submarine multiple-conductor cables used in telephone and telegraph communications and electric power transmission systems.

CARDIOLOGIST—A medical doctor who specializes in the diagnosis, treatment, and prevention of diseases of the heart and its functions.

CARPENTER—An individual who constructs, erects, installs, and repairs structures and fixtures of wood, plywood and wallboard, using carpenter's hand tools and power tools—usually works according to building codes, blueprints, etc.

CARTOGRAPHER (Drafter)—A professional drafter who specializes in drawing maps of geographical areas to show natural and constructed features, political boundaries and other features.

CATALOGER—A librarian who compiles information and library materials such as books and periodicals and prepares catalog cards to identify materials and integrate information into library catalogs.

CATERER—One who coordinates the food service activities of a hotel, restaurant or other similar establishment or at a social function—includes food preparation, cost, menu, personnel, food quality and service.

- CERAMIC ENGINEER**—An engineer who specializes in developing new nonmetallic inorganic materials and new methods for making ceramic materials into useable products.
- CHAMBER OF COMMERCE OFFICER**—One who represents a local nonprofit organization involved with the coordination of activities related to domestic trade, construction aviation or space—involves analyzing of market trends, economic conditions and tax problems; advising businesses, supporting economic and civic growth endeavors, etc.
- CHAPLAIN**—A clergy worker who conducts and coordinates worship services, evangelism activities and religious education endeavors in the armed forces, industry, correctional institutions, hospitals and on college campuses.
- CHEF**—A professional cook who supervises, coordinates and participates in the activities of cooks and other kitchen personnel engaged in preparing and cooking foods in hotels, restaurants, cafeterias and other establishments.
- CHEF GARDE MANGER**—A cold meat chef who specializes in preparing meat loaves, salads, leftover meats, seafood and poultry—slices cold meats and cheeses, appetizers, relishes and hor d'oeuvres, cold meat sandwiches, etc.
- CHEMICAL LABORATORY TECHNICIAN**—A worker who conducts chemical and physical laboratory tests and makes qualitative and quantitative analyses of materials, liquids, and gases for the purpose of research, new products, health and safety standards, criminology, environmental concerns, etc.
- CHEMIST**—A physical scientist who researches and puts to practical use knowledge related to the structure, composition and nature of substances.
- CHIEF EXECUTIVE OFFICER (CEO)**—The top executive or administrator of a large corporation or government.
- CHILD WELFARE WORKER (Caseworker)**—A social worker who aids parents with child rearing problems and children as well as youths who have difficulty in social adjustments—investigates home conditions—may refer to community resources, coordinate foster care or adoption activities, provide counsel to families, supervise and monitor placements, etc.
- CHIROPRACTOR**—A medical doctor who specializes in the adjustment of the spinal column and other body parts to prevent disease and correct abnormalities of the human body believed to be caused by interferences related to the nervous system.
- CHOREOGRAPHER**—A dance director who creates and teaches original dances for ballet, musical or revue to be performed for stage, television, motion picture or nightclub production.
- CHURCH BUILDING ENGINEER**—A general custodial worker responsible for the overall maintenance and physical operation of a church building or related property.
- CIRCULATION MANAGER**—A manager who directs the sales and distribution of newspapers, books and periodicals.
- CITY MANAGER**—A government administrator who directs and coordinates the administration of a city or county government in accordance with policies determined by a city council or other authorized officials.
- CIVIL ENGINEER**—A engineer who plans, designs and directs the construction and maintenance of structures and facilities such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, water and sewage systems and waste disposal units.
- CLIMATOLOGIST**—A meteorologist who specializes in the study of climate and climatic conditions.
- CLINICAL CHEMIST**—A biochemist who studies the chemical processes of living organisms and uses complex chemical tests and procedures to analyze body tissues and fluids.
- CLOTH DESIGNER**—A professional worker who originates designs for fabrication of cloth, specifying weave pattern, color and gauge of thread to create new fabrics according to functional requirements and fashion preferences of consumers.
- COAL-PIPE-LINE OPERATOR**—A worker who controls, from a master panel, semiautomatic processing plant that pulverizes and mixes coal with water and introduces resulting slurry into pipeline for transportation.
- COLLEGE ADMINISTRATIVE DEAN**—A college administrator who directs and coordinates a specific area of responsibility such as Student Affairs, Academics, Occupational Programs, Continuing Education, Men, Women, etc.
- COLUMNIST (Commentator)**—An individual who analyzes news and writes a column or commentary based on personal knowledge and experience with the subject matter for publication or broadcast.
- COMMERCIAL ARTIST (Graphic Artist; Illustrator)**—A professional artist who draws or paints illustrations for use by various media to explain or adorn the printed or spoken word.
- COMMUNITY SERVICE AGENCY DIRECTOR**—An individual who directs the activities of a community

health or social help agency concerned with community problems such as teen pregnancy, child abuse, drugs, alcohol, cancer, tuberculosis, etc.

COMPOSER—A person who writes musical compositions—may write scores for motion pictures or television programs.

COMPOSITOR—A worker who sets type by hand and machine and assembles type and cuts in a galley for printed articles, headings and other printed matter.

COMPUTER PROGRAMMER—A professional who develops and writes natural and artificial language computer programs to store, locate and retrieve specific documents data and information.

CONSERVATIONIST—A worker who is concerned with the protection and care of natural resources such as streams, rivers, lakes, forests, etc.

CONSULTANT—A professional who has developed a proficiency or expertise in a particular area and is consulted by clients to define a need or problem, conduct studies of survey to obtain information and analyze data to advise on or recommend solution to.

CONTRACTOR—A manager who contracts to perform specified construction work in accordance with architectural plans, blueprints, codes, etc.—may be classified as building contractor, landscape contractor, engineering contractor, etc.

CONTROLLER (Comptroller)—A individual who directs the financial affairs of an organization such as a bank, hospital, governmental office, hotel, etc.

COOPERATIVE EXTENSION WORKER—An agricultural agent who organizes and conducts a cooperative extension program to advise farmers and individuals engaged in agri-business in application of agricultural research findings—may direct 4-H club activities, provide lectures and prepare articles—attempts to educate others about agriculturally-related concerns—sometimes referred to as "Agricultural Extension Agent."

COPYWRITER—A professional who writes material (copy) for use by publication or broadcast media to promote the sale of goods and services—corrects and revises, when necessary.

CORONER—A medical examiner who directs investigations of death occurring within jurisdiction as required by law—involves conducting inquests, performing autopsies and laboratory analyses—may testify at hearings or trials.

CORRECTIONS OFFICER—An individual who is responsible for guarding inmates in jails and prisons in accordance with established policies, regulations and procedures.

COUNSELOR—A professional worker who counsels individuals and provides group educational and vocational guidance services—collects, organizes and analyzes information about individuals and institutions.

CORRECTIVE THERAPIST—A professional health care specialist who provides a medically prescribed program of physical exercise and activities designed to prevent muscular problems resulting from a long-term period of inactivity due to a chronic illness.

COUNTY PROSECUTOR—See "District Attorney."

COURT REPORTER—A clerk who performs clerical duties in a court of law—involves preparing calendar of cases, examining legal documents, explaining procedures, securing information, recording minutes of court proceedings and various other tasks.

CREDIT MANAGER—A worker who directs and coordinates the activities of a federal or state chartered credit union engaged in providing savings and loans services to members.

CRIMINOLOGIST—A professional sociologist who specializes in the research of the relationships between criminal law and social order in cases of crime and behavior of criminals.

CRYSTALLOGRAPHER—An individual who conducts studies of nonmetallic minerals used in the horological industry (clocks, watches, jewelry).

CURATOR—A professional worker who oversees the collection, research, authentication, preservation maintenance and information dissemination activities of workers engaged in operating and exhibiting institutions such as a museum, botanical garden, arboretum, art gallery, herbarium or zoo.

CURRICULUM SUPERVISOR—A professional educator who supervises and oversees the implementation of an instructional materials program in elementary or high schools in accordance with guidelines—may be designated Supervisor of Language Arts, Mathematics, etc.

CUSTOMS INSPECTOR—A government worker who inspects cargo, baggage, articles worn or carried by persons on vessels, vehicles or aircraft entering or leaving the United States to enforce customs and related laws.

CYTOLOGIST—A biological scientist who studies plant or animal cells.

CYTOTECHNOLOGIST—A health care specialist who assists the pathologist through the process of staining, mounting and studying cells of the human body to determine pathological condition.

- DAIRY TECHNOLOGIST**—See "Food Scientist."
- DANCE THERAPIST**—A specialist who plans, organizes and directs dance activities and learning experiences as part of the care and treatment of patients to influence behavioral changes leading to increased experience and comprehension of self and environment.
- DATA BASE MANAGER**—A worker who supervises and manages the designing, creating and operating activities in the formulation of new information storage banks.
- DATA ENTRY EQUIPMENT OPERATOR**—A computer worker who enters information into a computer system. Workers who engage in this type of work are CRT Operators, Key-Tape Operators and Key-punch Operators.
- DAY CARE DIRECTOR (Nursery School)**—An administrative worker who directs and supervises workers and organized activities of prekindergarten children in nursery schools or in playrooms.
- DERMATOLOGIST**—A medical doctor who specializes in the diagnosis and treatment of diseases of the skin—sometimes referred to as a "skin doctor."
- DENTAL HYGIENIST**—A medical health care worker who specializes in removing calcareous deposits, accretions, and stains from teeth by scaling accumulation of tartar from teeth and beneath margins of gums—cleans teeth; etc.
- DENTAL LAB TECHNICIAN**—A health care worker who builds and repairs full and partial dentures (sets of teeth), using handtools, molding equipment and bench fabricating machines.
- DENTIST**—A medical doctor who specializes in the diagnosis, treatment and prevention of diseases, injuries and malformation of teeth, gums and related structures.
- DEPARTMENT MANAGER**—A person who directs and coordinates, through the workers he or she is in charge of, departmental activities and functions in commercial, industrial or services establishments, utilizing knowledge of department functions and company policies, standards, and practices.
- DIAGNOSTIC MEDICAL SONOGRAPHER**—A health care specialist who utilizes ultrasound diagnostic procedures which make use of sonic energy to determine the extent or identify disease or injury in body tissue.
- DIESEL MECHANIC**—A mechanic who repairs and maintains diesel engines used to power buses, ships, trucks, trains, electric generators and construction machinery using handtools, precision-measuring instruments and machine tools.
- DIETETIC TECHNICIAN**—A worker who works under the direction of a dietitian to provide service in assigned areas of food service management teaching principles of food nutrition and conducting dietary counseling assistance.
- DIETITIAN**—A health care specialist who directs, plans and supervises programs for menu formulation, food preparation, nutritional care, serving of meals, diets, etc.
- DIPLOMAT**—See "Foreign Service Officer."
- DIRECTOR OF ADMISSIONS**—A professional worker who directs and coordinates a student admissions program at a public or private college or university according to policies developed by a governing board—determines who will be accepted, prepares and distributes material about the institution and its programs, conducts recruitment programs, etc.
- DIRECTOR OF CAREER PLACEMENT**—A professional worker who directs and supervises the job placement services for students and employees—usually arranges for interviews, posts or publicizes listings of job openings, supervises and coordinates campus work-study programs, offers seminars and workshops related to job seeking-holding skills, develops and distributes occupational information, etc.
- DIRECTOR OF CINEMATOGRAPHY**—A photography director who plans, directs and coordinates motion picture filming.
- DIRECTOR OF GUIDANCE**—A professional counseling administrator who directs and coordinates the activities of personnel engaged in providing educational and vocational guidance and counseling for students and graduates.
- DISPATCHER**—A worker who dispatches buses, cabs, trains, airplanes, trucks and other transporting vehicles—supervises, coordinates and conveys schedules and instructions in regards to movement and location—maintains communication linkage and operational log, etc.
- DISTRICT ATTORNEY (Prosecuting Attorney)**—A lawyer who conducts prosecution in court proceedings in behalf of the city, county, state or Federal government—presents evidence against the accused to grand jury and before judge or other judiciary or jury.

- DRAFTER**—A worker who prepares clear, complete and accurate working plans and detail drawings from rough or detailed sketches or notes for engineering or manufacturing purposes according to specified dimensions—may specialize in architectural, aeronautics, electrical, etc.
- DRY-WALL APPLICATOR**—A construction worker who plans gypsum drywall installations, erects metal framing and furring channels for fastening drywalls, and installs drywall to cover walls, ceiling and other areas in residential, commercial and industrial buildings.
- ECOLOGIST**—A biological scientist who studies the relationship between organisms and their environments and the effects of influences such as pollutants, rainfall, temperature and altitude on organisms.
- ECONOMIST**—A professional who plans, designs and conducts research to aid in interpretation of economic relationships and in solutions of problems arising from the production and distribution of goods and services—may specialize in health, agriculture, labor or other areas.
- EDITOR**—A person who coordinates and manages the activities of those who prepare materials, items or productions for publication and may involve suggestions for revamping, revision, altering, modifying, etc.
- EEG TECHNOLOGIST (Electroencephalographic)**—A medical health care worker who measures impulse frequencies and differences in electrical potential from the brain for use in diagnosis of brain disorders using the electroencephalograph.
- EKG TECHNICIAN (Electrocardiograph)**—A medical health care worker who records electromotive variations in the action of heart muscle, using the electrocardiograph machine, to provide information for determining reasons for heart complications.
- ELECTRICIAN**—An individual who specializes in planning the layout, installation and repair of electrical wiring, fixtures, apparatus and control equipment—usually adheres to electrical codes and works by blueprint or design—may specialize in areas such as construction, automotive, appliances, etc.
- ELEMENTARY TEACHER**—A professional who teaches student academic, social and manipulative skills in grades 1-6 in either a public or private institution.
- EMERGENCY MEDICAL TECHNICIAN**—A medical health care worker who administers first-aid during and while transporting sick or injured persons to a medical facility—works as a member of a team and responds to emergency situations.
- ENGINEER**—A professional worker who practically applies mathematical and scientific principles in an economical and efficient manner as it applies to the design, planning, development, production, supervision, repair and maintenance of products, equipment, structures, processes, systems and programs necessary to operate an industrial society. Main branches include Civil, Electrical/ Electronics, Mechanical, Industrial, Metallurgical, Chemical, Aerospace, Agricultural and Nuclear.
- ENTOMOLOGIST**—A professional scientist who studies insects and their relation to plant and animal life—identifies and classifies insects—helps to develop pesticides and other methods to control pests, etc.
- ENTREPRENEUR**—An individual who owns his or her own business.
- ENVIRONMENTALIST**—A professional worker who studies, analyzes and evaluates environmental problems and applies scientific knowledge to prevent pollution, solve problems and make predictions as it relates to the air, water, land, noise, and radio activity.
- ENVIRONMENTAL HEALTH TECHNICIAN**—A worker who conducts test and field investigations to obtain information for use by environmental engineering and scientific personnel in determining sources and methods of controlling pollutants in air, water, and soil.
- ESCROW OFFICER**—A professional worker who holds in escrow (safekeeping) funds, legal papers and other collateral posted by contracting parties to insure fulfillment of contracts or trusts agreements.
- ESTIMATOR**—An accounting specialist who prepares cost estimates for manufacturing of products, construction projects or services requested to aid management in bidding on or determining price of product or service.
- EXECUTIVE HOUSEKEEPER**—An administrator who directs an institutional housekeeping program to insure clean, orderly and attractive conditions—may be employed by hospitals, hotel and motel establishments.
- FARMER/FARM MANAGER**—A person whose full-time work consists of tilling the soil, planting, cultivating and harvesting plants and/or raising, caring for, gathering and breeding livestock.
- FASHION DESIGNER**—A professional worker who designs men's, women's and children's garments, shoes and handbags.
- FBI AGENT**—See "Special Agent."

- FINANCIAL AID DIRECTOR**—A professional worker who directs the scholarship, grant-in-aid and loan programs at a college or university to provide financial assistance to students.
- FINANCIAL ANALYST**—A worker who conducts statistical analyses of information affecting an investment program of a public, industrial or financial institution such as a bank, insurance company, brokerage or investment house.
- FINANCIAL PLANNER**—A professional worker who specializes in assisting individuals and companies invest their financial income in the most efficient and economical manner to better insure and prepare for future needs, disasters, goals, desires, etc.
- FLORICUTURIST**—A professional horticulturist who specializes in the research, breeding, production, storage, processing and transit of flowers—a flower scientist.
- FLORIST**—An individual who designs and fashions live, cut, dried and artificial floral and foliar arrangements for events such as holidays, anniversaries, weddings, balls and funerals—arranges bouquets, sprays wreaths, etc.—may decorate buildings, halls, churches and other facilities.
- FOOD PRODUCTION MANAGER**—See "Chef."
- FOOD AND DRUG INSPECTOR**—A government worker who inspects establishments where food, drugs, cosmetics and similar consumer items are manufactured, handled, stored or sold to enforce legal standards of sanitary conditions and health and hygiene habits of persons handling consumer products.
- FOOD SCIENTIST/TECHNOLOGIST**—A professional scientist who applies scientific and engineering principles in the research, development, production technology, quality control, packaging, processing and utilization of foods—may specialize in dairy products, poultry, cereal, grains, etc.
- FOOD SERVICE MANAGER**—An individual who manages, supervises and coordinates a program of serving food in a hospital, nursing home, school or college food service department or similar institution.
- FOREIGN CORRESPONDENT**—See "Reporter."
- FOREIGN SERVICE OFFICER**—A government worker who represents the interest of the United States Government and nationals by conducting relations with foreign nations and international organizations, protecting and advancing political, economic and commercial interests and rendering personal services to Americans abroad and to foreign nationals traveling to the United States—may be termed Diplomat, Consultant, Ambassador, etc.
- FORESTER**—A professional who manages and develops forest lands and their resources for economic and recreational purposes.
- FORESTRY TECHNICIAN**—A worker who gathers information pertaining to size, content, condition and other characteristics of forest tracts and under the direction of a forester, leads workers in forest propagation, fire prevention and fighting and facilities maintenance.
- FOUR-H CLUB AGENT**—A worker who organizes and directs the educational projects and activities of a 4-H Club—recruits farm volunteer leaders, directs selection of projects such as sewing, woodworking, photography and livestock raising—develops and arranges for exhibits in county or state fairs, etc.
- FREELANCE WRITER**—A self-employed part-time or full-time worker who submits his or her writings to various sources for publication.
- GENEALOGIST**—A historian who conducts research into the background of an individual or family in order to establish descent or to discover and identify forebearers of the individual or family.
- GENERAL CONTRACTOR**—A construction manager who contracts to perform specified construction work in accordance with an architect's plans, blueprints, codes and other specifications—may subcontract specialized craft work.
- GENERAL PRACTITIONER**—A medical doctor who tends to a variety of medical cases in a general and less specialized manner—may make house calls and be the physician for a small community, etc.
- GENERAL SUPERINTENDENT**—A manager who directs the activities of workers concerned with construction of buildings, dams, highways, pipelines, or other construction projects—usually directs and oversees other supervisory personnel.
- GENETICIST**—A professional scientist who studies the inheritance and variation of characteristics in forms of life—may specialize in molecular, population, human, medical, animal, or plant areas.
- GEOGRAPHER**—A professional who studies nature and the use of areas of the earth's surface relating and interpreting interactions of physical and cultural phenomena.
- GEODESIST**—A professional who studies the size, shape and gravitational field of the earth.
- GEOLOGIST**—A physical scientist who specializes in the study of the composition, structure and history of the earth. Specialties include Oceanographer, Photogeologist and others.
- GEOMORPHOLOGIST**—A geologist who specializes in the history, structure and changes of the earth's surface.

- GEOPHYSICIST**—A physical scientist who studies the physical aspects of earth, including it's atmosphere and hydrosphere. Specialties include Oceanography, Glaciology and Volcanology.
- GEOTECHNICAL ENGINEER**—A civil engineer who specializes in the evaluation of soil and rocks that support structures and assist in the design and construction of foundations, dams, tunnels, etc.
- GERONTOLOGIST**—A sociologist who specializes in the study of the aging and older adults.
- GLAZIER (Glass Setter)**—A construction worker who installs glass in windows, skylights, store fronts, display cases, in building fronts, interior walls, ceilings and table tops—may specialize as auto-glass worker, aircraft, plate-glass installer, etc.
- GRAPHIC ARTIST**—See "Commercial Artist."
- GRAIN AND FEED MILLER**—A worker who tends equipment to mix grain for milling into blended flour and/or who mixes meat scraps used in poultry feed.
- GRAPHIC DESIGNER**—An artist who designs art and copy layouts for material to be presented by visual communication media such as books, magazines, newspapers, television and packaging.
- GREENSKEEPER**—A worker who supervises and coordinates the activities of others engaged in preserving the grounds and turf of golf courses.
- GROUNDSKEEPER**—A caretaker who maintains the grounds of industrial, commercial or public property and performs a combination of tasks such as cutting lawns, trimming hedges, pruning trees, fertilizing and spraying, raking and planting, watering and shoveling snow, repairing, etc.
- GYNECOLOGIST**—A medical doctor who specializes in the diagnosis, treatment and prevention of diseases and disorders of the female genital, urinary and rectal organs—may perform surgery, if needed.
- HAND MOLDER**—A worker who tends a stuffing machine that fills molds with meat emulsion to form meat loaves—may stuff bologna and bacon into casings by hand, etc.
- HARDWARE SALESPERSON**—A worker who sells either wholesale or retail the mechanical, electrical or physical part of a computer or related equipment.
- HEALTH LIBRARIAN**—A librarian who manages a library or section containing specialized health materials for industry, commercial or governmental organizations, schools or hospitals.
- HEALTH MICROBIOLOGIST**—See "Microbiologist."
- HISTORIAN**—A professional who prepares in narrative, brief, or outline form, chronological accounts or records of past or current events dealing with some phases of human activity—may serve as consultant on historical trends, developments and events.
- HOME ECONOMIST**—A professional worker who organizes and conducts consumer education service or research programs for equipment, food, textile or utility companies utilizing principles of home economics (preparing food, recipe testing, using household equipment or products, home management, etc.)—may specialize as a Nutritionist, Equipment Specialist, etc.
- HOME HEALTH AIDE (Home Attendant)**—A worker who cares for elderly, convalescent (recovering from illness) or handicapped persons in the patients home, performing any combination of tasks such as changing beds, ironing, washing, purchasing food items, massaging, assisting patient in walking, etc.
- HORTICULTURIST**—A professional worker who conducts experiments and investigations on problems of breeding, production, storage, processing and transit of fruits, nuts, berries, vegetables, flowers, bushes and trees.
- HOTEL/MOTEL MANAGER**—A person who manages a hotel or motel to insure it is a efficient and profitable operation.
- HYDRAULICS ENGINEER**—A civil engineer who specializes in the area of hydraulics (water or liquid operation).
- HYDROLOGIST**—A geologist who studies the distribution, circulation and physical properties of underground and surface waters.
- HYDROGRAPHER**—An individual who analyzes hydrographic data to determine trends in movement and utilization of water.
- HUMORIST**—A professional who writes humorous (comedy) material for publication or performance.
- ILLUSTRATOR**—See "Commercial Artist."
- ILLUSTRATOR/RENDERER**—A worker who renders (produces) perspective drawings of buildings and products for display or advertising purposes working from sketches and blueprints, using pencil, pen, charcoal, watercolors, or air brush.
- IMPERSONATOR**—An entertainer who impersonates (imitates) another person or type of person, animal or inanimate object—may specialize as an animal, male or female impersonator.

- INDUSTRIAL DESIGNER**—A professional worker who originates and develops ideas to design the form of manufactured products.
- INDUSTRIAL HYGIENIST**—A health care professional who develops, conducts and evaluates the health program in an industrial setting or governmental organization in an effort to identify, eliminate and control health hazards such as dust, gases, vapors, lighting, noise, ventilation, diseases and other conditions.
- INDUSTRIAL THERAPIST**—A health care specialist who coordinates and arranges for mentally ill patients to work in normal work environments and perform medically prescribed work activities—also works to motivate and prepare patients for work outside of a hospital environment.
- INDUSTRIAL TRUCK DRIVER**—A worker who drives a gasoline, liquified gas or electric-powered industrial truck equipped with lifting devices (fork-lifts, boom, scoop, lift beam, swivel hook, fork-grapple, clamps, elevating platform or trailer hitch) to push, pull, lift, stack, tier, or move products, equipment or materials in a warehouse, storage yard or factory.
- INFORMATION SCIENTIST**—A professional worker who designs information systems to provide management or clients with specific data from computer storage utilizing the knowledge of electronic data processing principles, mathematics and computer capabilities.
- INSTRUMENT REPAIRER**—A worker who repairs and calibrates speedometers and other automotive gauges and meters using handtools and test equipment.
- INSURANCE ADJUSTER (Claims Adjuster)**—A worker who investigates claims against insurance or other companies for personal, casualty or property loss or damages and attempts to effect an out-of-court settlement with the claimant.
- INTERIOR DESIGNER**—A professional worker who plans, designs and finishes interior environments of residential, commercial and industrial buildings—may specialize in decorative aspect and be called an Interior Decorator.
- INTERNAL AUDITOR**—An accounting professional who conducts an independent protective and constructive audit (examination) for management to review the effectiveness of controls, financial records and operations.
- INTERNAL REVENUE AGENT**—A government officer who conducts independent field audits and investigation of Federal income tax returns to verify or amend tax liabilities.
- INTERNIST**—A medical doctor who specializes in the diagnosis, treatment and prevention of diseases and injuries of human internal organ systems.
- JOB ANALYST**—A professional who collects, analyzes and prepares occupational information—observes jobs and interviews workers—writes job descriptions and specifications—may specialize in classifying positions.
- JOB SETTER**—A machinist who sets up and adjusts various machine tools such as lathes, milling and boring machines, drill and punch presses, etc.—usually works by blueprint, job order and various specifications.
- JUDGE**—A professional worker who arbitrates disputes, advises counsel, jury, litigants or court personnel and administers judicial system, establishes procedures, examines and listens to evidence, instructs jury and administers sentences—may specialize in various areas such as Appellate-Court, Juvenile or Probate.
- LANDSCAPE ARCHITECT**—A professional architect who plans and designs the development of land areas for projects such as parks, airports, highways, parkways, hospitals, schools, factories, housing projects, business establishments, etc.
- LANDSCAPE GARDENER**—A worker who plans and executes small scale landscaping operations and maintains grounds and landscapes of private and business residences.
- LATHER**—A construction worker who fastens wooden, metal or rockboard to walls, ceilings and partitions of buildings to provide supporting base for plaster, fireproofing or acoustical material, using handtools and portable power tools.
- LAWYER**—A professional worker who practices law, conducts criminal and/or civil lawsuits, draws up legal documents, advises clients, represents clients in court, gathers evidence—may act as trustee or may teach college courses—may specialize in a particular phase of law (i.e., corporate, criminal, etc.).
- LAYOUT WORKER**—A worker who lays out metal stock or workpieces such as castings, plates or machine parts to indicate location dimensions and tolerances necessary for further processing—analyzes specifications and computing dimensions and follows blueprints.
- LEGAL INVESTIGATOR**—A legal assistant who researches and prepares cases relating to administrative

appeals of civil service members—presents arguments and evidence to support appeal at appeals hearing.

LEGAL SECRETARY—A secretary who prepares legal papers and correspondence of a legal nature such as summonses, complaints, motions and subpoenas.

LEXICOGRAPHER—A dictionary editor who researches information about words that make up language and writes and reviews definitions for publication in dictionaries.

LIBRARIAN—A professional worker who specializes in maintaining collections of books, serial publications, documents, audiovisuals and other materials—assist individuals and groups in locating and obtaining these materials.

LIBRARY TECHNICIAN—One who provides information services such as answering questions regarding catalogs, assisting public in use of bibliographic tools, filing cards, answering routine inquiries and making referrals to others, etc.

LICENSED PRACTICAL NURSE (LPN)—A health care specialist, licensed by the state, who provides direct personal bedside care for those who are sick injured or elderly in hospitals, clinics, private homes, convalescent homes and other institutions.

LINE INSTALLER—A worker who installs and repairs telephone and telegraph lines, poles, and related equipment according to diagrams and using electrician's handtools.

LINGUIST—One who studies components, structure and relationships within a specified language to provide comprehension of it's social functioning—may help prepare language-teaching materials, dictionaries and handbooks.

LITHOGRAPHER PLATE MAKER—A worker who transfers positive or negative images to metal plates to practice offset printing plates using liquid formulas, photo composing machine, plate whirler table and measuring instruments.

LOBBYIST—A public relations specialist who contacts and meets with members of the legislature and other public officials to persuade them to support laws which are favorable to their client's interest.

MACHINIST—A worker who sets up and operates machine tools and fits and assembles parts to make or repair metal parts, mechanisms, tools or machines applying knowledge of mechanics, machinery procedures—usually follows a blueprint.

MATRE'D—A worker who is considered the head waiter or steward in a hotel or restaurant.

MANAGER—A worker who directs, guides and coordinates people and/or activities in an effort to carry out an economic or social endeavor in the most efficient manner.

MANPOWER DIRECTOR—An administrator who directs and supervises employees and activities related to securing for employers qualified temporary workers to fill job vacancies.

MANUAL ARTS THERAPIST—A health care specialist who specializes in instructing and supervising patients for actual or simulated work experiences (photography, woodworking, graphic arts, etc.) in an effort to prevent health problems and enhance employability rehabilitation.

MANUFACTURERS SALES REPRESENTATIVE (Agent)—A sales person who sells single, allied, diversified or multi-line products to wholesalers or other customers for one or more manufacturers on a commission basis.

MARBLE SETTER—A construction worker who cuts, tools and sets marble slabs in the floors and walls of a building and repairs and polishes slabs previously set.

MARKET RESEARCH ANALYST—A professional worker who specializes in the research of marketing conditions in a local, regional or national area to determine the potential sales of a product or service.

MATHEMATICIAN—A professional worker who conducts research in fundamental mathematics and in the application of mathematical techniques to science, management and other fields—solves or directs solutions to problems in various fields by mathematical methods.

MEDICAL ASSISTANT—One who serves as a secretary, receptionist and/or bookkeeper and performs duties such as arrange for x-ray procedures, hospital admissions or surgery, billing and collecting fees, insurance claims, etc.

MEDICAL ENGINEER—An engineer who works with physicians and scientists utilizing ideas, skills, experience and engineering techniques to improve medical care related to diagnosis, surgery and rehabilitation.

MEDICAL ILLUSTRATOR—An artist who sketches, draws, paints and develops diagrams and models illustrating medical findings for use in publications, exhibits, consultations, research and teaching—also makes sketches and models to show surgical and medical research procedures, etc.

MEDICAL LAB TECHNICIAN—A medical health care worker who performs routine laboratory tests

- for use in the treatment and diagnosis of disease—takes blood samples and prepares tissue samples for pathologist.
- MEDICAL OFFICER**—A public service worker who plans and participates in medical care of research programs in hospitals, clinics or other public medical facilities to provide medical services to those who qualify.
- MEDICAL RECORDS TECHNICIAN**—An individual who specializes in compiling and maintaining medical records of hospital and clinic patients.
- MEDICAL PHYSICIST**—See "Physicist."
- MEDICAL SOCIAL WORKER**—See "Social Worker."
- MEDICAL TECHNOLOGIST**—A medical health care specialist who performs chemical, microscopic, serologic, hemalologic, immunohemalologic, parasitic and bacteriologic tests to provide information for use in treatment and diagnosis of disease.
- MENTAL HEALTH TECHNICIAN (Psychiatric Technician)**—A health care worker who assists, treats, works with and directly supervises emotionally ill and mentally retarded patients.
- MENTAL HEALTH WORKER**—An individual who works in a hospital or agency which provides treatment and/or service to individuals who experience mental or emotional difficulties—position and responsibilities vary greatly and may range from custodial and secretarial to psychiatric counselors, social workers, program directors and mental health institution administrators.
- MERCHANDISE DISPLAYER**—A worker who displays merchandise such as clothes, accessories and furniture in windows, showcases and on sales floor of retail stores to attract attention of prospective customers—arranges mannequins, properties, furniture, backdrops, etc.
- METEOROLOGIST**—A physical scientist who analyzes and interprets meteorological data gathered by surface and upper-air-stations, satellites and radar to prepare reports and weather forecasts for the public and other users.
- METALLURGIST**—A person who investigates and conducts experiments concerned with the physical characteristics properties and processing of metals—Extractive Metallurgist is concerned with the process of winning metals (taking out) from their ores for producing or refining.
- MICROBIOLOGIST (Bacteriologist)**—A scientist who studies the growth, structure development and general characteristics of bacteria and other microorganisms—may specialize as a Virologist or in other areas.
- MILLWRIGHT**—A skilled worker who installs machinery and equipment, according to a layout plan, blueprint and other drawings, in industrial plants, using hoists, lift trucks, hand tools and power tools.
- MINERALOGIST**—A physicist specialist who examines, analyzes and classifies minerals, gems and precious stones.
- MINISTER**—A professional who conducts religious worship and performs other spiritual functions associated with beliefs and practices of a particular faith or denomination as authorized and provides spiritual and moral guidance and assistance of members—may be called chaplain, pastor, rector, etc.
- MODEL MAKER**—A skilled worker who constructs scale models of objects using clay, metal, wood, fiberglass or other substances, depending on the industry for which the model is being constructed (i.e., automobile, boat, etc.).
- MORTICIAN (Funeral Director)**—An individual who arranges for, coordinates and directs funeral services.
- MUSIC THERAPIST**—A health care specialist who plans, organizes, teaches and supervises music and related activities to enhance the chances of a more integrated and successful rehabilitation of the patient.
- MYCOLOGIST**—A professional scientist who studies the mechanism of life processes of edible, poisonous and parasitic fungi to discover those that are useful to medicine, agriculture and industry—applies findings to the development of molds, yeasts, medicines and drugs.
- NARRATOR**—A person who makes explanatory comments to accompany action parts of radio or TV broadcasts, motion pictures or other audio-visual media.
- NATURALIST**—A professional who specializes in the study of either plants or animals (i.e., Zoologist, Botanist, etc.).
- NEUROLOGIST**—A medical doctor who specializes in the diagnosis and treatment of organic diseases and disorders of the nervous system—may be referred to as a "Nerve Specialist."
- NUCLEAR ENGINEER**—An engineer who engages in the design, development, monitoring and operation of nuclear power plants to generate electricity and power Navy ships—may also conduct research on nuclear energy and radiation.
- NUCLEAR MEDICINE TECHNOLOGIST**—A medical health care specialist who prepares, administers

and measures radioactive isotopes in therapeutic, diagnostic, and tracer studies, utilizing a variety of radioisotope equipment—prepares stock solutions of radioactive materials and calculates doses to be administered by a Radiologist.

NURSE ANESTHETIST—A professional health care specialist who administers anesthetics or drugs (via fluids, gases, etc.) to lessen or alleviate pain during surgical, dental or other medical procedures.

NURSE MIDWIFE—A professional health care nurse who specializes in providing medical care to women under the care of an obstetrician—delivers babies and provides patients with health care during pregnancy as well as for a period of time following childbirth.

NURSE PRACTITIONER—A professional health care specialist who usually works with a physician to provide general medical care and treatment to assigned patients—at times may work independently.

NUTRITIONIST—A home economist who conducts and organizes consumer education service or research programs for food and nutrition utilizing principles of home economics.

OBSTETRICIAN—A medical doctor who specializes in the treatment of women during prenatal, natal and post-natal periods—primarily concerned with the mother's as well as the infant's health and bedside comfort during pregnancy—involves follow-up for a short period of time after childbirth.

OCCUPATIONAL THERAPIST/ASSISTANT—A health care specialist who plans, organizes and conducts a comprehensive rehabilitation program in an effort to assist mentally, emotionally or physically handicapped persons to return to normalcy. This may include activities related to manual arts, crafts, homemaking skills, educational, recreational and social skills.

OCEANOGRAPHER—A specialist who studies oceans, seas, marine life and related areas.

OPHTHALMOLOGIST—A medical doctor who specializes in the diagnoses, treatment and prevention of diseases and injuries of the eyes—may be referred to as an "Eye Doctor."

OPERATING ENGINEER—A heavy equipment operator who may operate one or more types of power construction equipment such as compressor pumps, hoists, derricks, cranes, shovels, tractors, scrapers, or motor graders to excavate, move and grade earth, erect and reinforce steel, pour concrete or other hard surface material.

OPTICIAN—An individual who sets up and operates machine tools to construct optical (visual) elements and systems.

OPTOMETRIST—One who specializes in eye examinations to determine visual efficiency, performance, diseases and other abnormalities and prescribes corrective procedures.

ORCHARDIST—A farmer who specializes in planting and cultivating trees (i.e., apple, orange and walnut as well as in the harvest of fruit and nut crops) applying his or her knowledge of horticulture and marketing conditions.

ORTHODONTIST—A dentist who specializes in the diagnosis, prevention and correction of abnormal deviations, growth and development of teeth, and other dental facial-structures.

ORTHOTIST—An individual who fits and prepares devices for patients with disabling conditions of the limbs and spine in cooperation with an attending physician.

OSTEOPATHIC—A medical doctor who specializes in the diagnosis, treatment and prevention of diseases and injury through an integrated or holistic approach using, if deemed appropriate, drugs, surgery, radiation, physical and manipulative therapy—particular focus is on the correction of muscle skeletal disorders and affections (bones, muscles, nerves, etc.).

OTOLARYNGOLOGIST—A medical doctor who specializes in the diagnoses, treatment and prevention of diseases of the ear, nose, and throat—may be referred to as an "Ear, Nose and Throat Doctor."

PALEONTOLOGIST—A professional who studies the fossilized remains of plants and animals found in geological formations to trace the evolution and development of past life and identify geological formations according to nature and chronology.

PANTOMIMIST (Mime)—An entertainer who presents serious humorous or burlesqued (mocking) interpretations of emotions, dramatic actions and various situations through body movements, facial expressions and gestures.

PARALEGAL ASSISTANT (Legal Assistant)—A law clerk who researches law, investigates facts and prepares documents to assist lawyers.

PARASITOLOGIST—A professional scientist who studies characteristics, habits, and life cycles of animal parasites such as protozoans, tapeworms, roundworms, flukes, and other parasitic organisms to determine the manner in which they attack human beings and animals and the effects produced.

PARK RANGER—An officer who enforces laws, regulations and policies in state or national parks.

- PAROLE/PROBATION OFFICER**—A professional social worker who engages in activities related to the conditional release of juvenile or adult offenders from correctional institutions, establishes relationship with, provides supervision, evaluation, and other duties.
- PATENT AGENT**—A professional worker who prepares and presents patent applications to the U.S. Patent Office and in patent courts.
- PATENT LAWYER**—A lawyer who specializes in advising clients such as inventors, investors and manufacturers concerning the patentability of inventions, infringements, validity and similar items—prosecutes and defends clients.
- PATHOLOGIST**—A medical doctor who specializes in determining the nature, cause and development of diseases, structural and functional changes caused by them, cause of death and effects of treatment.
- PATTERNMAKER**—A worker who lays out, mills, drills, turns, grinds, fits, and assembles castings and parts to make metal foundry patterns, cove boxes, and match plates using hand tools, machine tools and patternmaking—usually follows blueprints.
- PEDIATRICIAN**—A medical doctor who specializes in the general medical care of children through adolescence.
- PEDODONTIST**—A professional dental specialist who specializes in the treatment of children's teeth.
- PENOLOGIST**—A professional sociologist who specializes in research on punishment for crime, crime control and prevention, management of penal (jails and prisons) institutions and rehabilitation.
- PERFUSIONIST**—A health care worker who operates life-supporting equipment geared to support or temporarily replace a patient's circulatory or respiratory function—may administer various related products and life supporting techniques.
- PERSONNEL MANAGER (Personnel Specialist)**—An individual who plans and carries out policies relating to all phases of personnel activity—recruiting workers, interviewing, filling vacancies, plans and conducts new employee orientations, keeps records of promotion, insurance, transfers, hires, etc.
- PETROLOGIST**—A professional who investigates the composition, structure and history of rock masses which form the earth's crust.
- PHARMACIST**—A health care professional who specializes in mixing chemical compounds and dispensing medications prescribed by physicians, dentists or other medical professionals—also makes recommendations regarding over the counter drugs—may be referred to as a "Druggist."
- PHARMACOLOGIST**—A biological scientist who specializes in the study of drugs, gases, dusts and other materials and their effect on the tissue and physiological processes of animals and human beings.
- PHOTOENGRAVER**—A worker who photographs copy, develops negatives and prepares photosensitized metal plates such as copper, zinc, aluminum and magnesium for use in printing, using photography and developing equipment and engraver's tools.
- PHOTOGRAMMETRIST**—A surveyor who specializes in the preparation of maps and drawings by measuring and interpreting aerial photographs using analytical processes and mathematical formulas.
- PHOTO-OPTICS TECHNICIAN**—A worker who sets up and operates photo-optical instrumentation to record and photograph data for scientific and engineering projects.
- PHYCOLOGIST**—A life scientist who specializes in the study of seaweeds or algae.
- PHYSICIAN**—A medical doctor. One who engages in the diagnoses, treatment, prevention and curative activities using medicine and other techniques to relieve and prevent suffering and save lives.
- PHYSICIST**—A physical scientist who conducts research into phases of physical phenomena—develops theories and laws on the basis of observation and experiments—devises methods to apply laws and theories of physics to industry, medicine, and other fields—looks at matter, energy and other phenomena.
- PHYSIATRIST**—A medical doctor who specializes in the clinical and diagnostic use of physical agents and exercise to provide physiotherapy for the physical, mental and occupational rehabilitation of patients—may use heating, cooling, freezing, light, electricity, etc.
- PHYSICAL THERAPIST/ASSISTANT**—A health care specialist who plans and administers medically prescribed scientific treatment programs to restore healthy function. The main goal of this specialized treatment is to test and evaluate the function of neuromuscular, musculoskeletal as well as cardiovascular and respiratory systems to relieve pain and treat malfunctions caused by disease, injury or loss of body parts.
- PHYSIOLOGIST**—A professional scientist who conducts research on cellular structure and organ-system functions of plants and animals—studies growth, respiration, circulation, excretions, movement, reproduction and other functions—may specialize in animal, plant or medical (human).
- PIPE FITTER**—A plumbing specialist who lays out, builds or fabricates, assembles, installs and maintains piping and piping systems, fixtures and equipment for steam hot water, heating, cooling, lubricating, sprinkling and industrial processing systems—usually follows building plans, blueprints, etc.

- PLANETOLOGIST**—A professional astronomer who specializes in the study of planets.
- PLASTIC SURGEON**—A medical doctor who specializes in skin grafts and bone tissue replacement, transplants, restoration or in the repair of lost or deformed parts of face and body.
- PLANT BREEDER**—A professional who plans and conducts breeding studies to develop and improve varieties of crops—seeks to improve size, quality, yield, maturity and resistance to disease, frost and pests.
- PLANT PATHOLOGIST**—A professional scientist who conducts research in the nature, causes and control of plant diseases and decay of plant products.
- PLASTERER**—A construction worker who applies coats of plaster to the interior walls, ceilings and partitions of buildings to produce a finished surface.
- PLAYWRIGHT**—A professional who writes original plays such as tragedies, comedies or dramas, or adapts themes from fictional, historical or narrative sources for dramatic presentation.
- PLUMBER**—A construction worker who assembles, installs, and repairs pipes, fittings, and fixtures of heating, water, and drainage systems, according to specifications and plumbing codes.
- PODIATRIST**—A medical doctor who specializes in the diagnosis, treatment and prevention of foot diseases, and deformities—may do minor surgery—sometimes referred to as a "Foot Doctor."
- POLICE COMMISSIONER**—A professional government worker who administers a municipal (city) police department.
- POLYGRAPH EXAMINER**—See "Administrative Examiner."
- PRESCHOOL TEACHER (Nursery)**—A teacher who instructs children in activities designed to promote social, physical and intellectual growth in preparing children in preschool, day care center or other child development facility—usually teaches youngsters from ages 2½–5 years old.
- PRINCIPAL**—A professional educator who directs and coordinates the educational, administrative and counseling activities of a primary (1–6 grades) or secondary (7–12 grades) school.
- PROBATE LAWYER**—A lawyer who specializes in the settlement and planning of estates—drafts wills, deeds or trusts and similar documents.
- PROCTOLOGIST**—A medical doctor who specializes in the diagnosis and treatment of diseases and disorders of the anus, rectum and colon—performs surgical removal of diseased or malfunctioning parts, or prescribes medication or other techniques, if necessary.
- PRODUCTION SUPERINTENDENT**—A manager who directs and coordinates other supervisory personnel in activities concerned with the production of company products utilizing knowledge of product technology, production methods and procedures and capabilities of machines and equipment.
- PROSTHETIC**—A worker who provides care to patients with partial or total absence of limb by planning the construction of, writing specifications for and fitting devices—works in cooperation with an attending physician.
- PSYCHIATRIC SOCIAL WORKER**—A professional social worker who specializes in providing psychiatric social work assistance to mentally or emotionally disturbed patients at hospitals, clinics, and other medical centers, and to their families, collaborating with a psychiatric and allied team in providing a diagnosis and treatment plan.
- PSYCHIATRIST**—A medical doctor who specializes in the study, diagnosis and treatment of mental, emotional and behavior disorders.
- PSYCHOLOGIST**—A professional who engages in the research, collection, interpretation and application of scientific information to human behavior and mental processes—may specialize in experimental, educational, social, clinic, counseling, school, industrial, engineering or developmental psychology.
- PSYCHOMETRIST**—A professional who administers, scores and interprets intelligence, aptitude, achievement and other psychological tests.
- PUBLIC HEALTH EDUCATOR**—An individual who plans, organizes, and directs health education programs for group and community needs—may prepare and distribute educational and information materials, conduct surveys and offer workshops.
- PUBLIC HEALTH SERVICE OFFICER**—A health care professional who administers a public-health program for a county or city—inspects public facilities for health hazards—may help establish free clinics, impose quarantines or close establishments.
- PUBLIC RELATIONS DIRECTOR/SPECIALIST**—A professional worker who specializes in the planning and conducting of a public relations program designed to create and maintain a favorable public image for an employer or client.
- PUPPETEER**—An entertainer who originate puppet shows, designs and constructs puppets and moves controls of puppets to animate them.
- PURCHASING AGENT**—A professional worker who purchases raw materials or other unprocessed goods

for processing and/or machinery, equipment, tools, parts, produce and other supplies of services necessary for the operation of an organization or business.

- RADIATION THERAPY TECHNOLOGIST**—A health care specialist who assists the radiologist in the treatment of disease by exposing affected areas to prescribe doses of x-ray or other ionizing radiation—maintains operation controls, assists in treatment responsibilities, records, etc.
- RADIOLOGIST**—A medical doctor who specializes in the diagnosis and treatment of diseases of the human body—uses x-ray and radioactive substances to examine organs, make diagnosis and administer treatment.
- RADIOLOGIC TECHNOLOGIST (Radiographer)**—A health care specialist who applies roentgen rays and radioactive substances to patients for diagnostic and therapeutic purposes—administers drugs or chemical mixtures—may be referred to as an X-ray Technologist, Radiographer-X-ray Technicians may do the actual equipment operation and body positioning.
- RECREATIONAL THERAPIST**—A health care specialist who plans, organizes and directs medically approved recreation programs for patients in hospitals and other institutions.
- REGISTERED NURSE**—A professional health care worker who specializes in providing those who are sick, injured, or elderly with direct personal care, support and on-going medical supervision. The name Registered Nurse is given to those who graduate from a junior college, senior college, or applied hospital registered nursing program.
- REGISTRAR**—A professional who directs and coordinates registration activities at a college or university. Handles transcripts, credit evaluations, coordinates class schedule, prepares statistical reports, etc.
- REPORTER**—One who collects and analyzes information about newsworthy events to write news stories for publication or broadcast—may specialize as a news writer, correspondent or foreign correspondent.
- RESEARCH ANALYST (Operations)**—A professional worker who conducts analyses of management and operational problems and formulates mathematical or simulation models of problems for solution by computers or other methods.
- RESPIRATORY THERAPIST/TECHNICIAN**—A health care worker who administers respiratory therapy care and life support to patients with deficiencies and abnormalities of the cardiopulmonary (heart) system under the supervision of a physician and by prescription.
- RETAIL MANAGER**—One who manages a store engaged in selling a specific line of merchandise such as groceries, meat, liquor, apparel, jewelry, appliances, furniture and other related items to retailers (those who sell directly to consumers).
- RIGGER**—A worker who assembles rigging (equipment or material used to put together or hold) to lift and move equipment or material in a manufacturing plant, shipyard, or on a construction project.
- ROUNDSMAN**—A cook who fills in or relieves other cooks in a large kitchen—may be referred to as a "Relief Cook."
- SAFETY ENGINEER**—An engineer who specializes in the design, development, implementation and evaluation of safety programs, apparatus, and other equipment to prevent or correct unsafe environmental working conditions utilizing knowledge of industrial processes, mechanics, chemistry, psychology and industrial health and safety laws.
- SANITARIAN**—A health care professional who plans, develops and implements environmental health programs aimed at establishing and enforcing health and sanitation standards.
- SANITARY ENGINEER**—A public health engineer who designs and directs the construction and operation of hygienic projects such as waterworks, sewage, garbage, and trash disposal plants, drainage systems, and insect/rodent control projects.
- SAUCIER**—A chef who specializes in making sauces.
- SCHOOL SUPERINTENDENT**—An administrator who directs and coordinates the activities concerned with the administration of a state, city, county, or other school system in accordance with board of education standards—the highest ranking school administrator in a particular system.
- SCIENTIFIC LINGUIST**—See "Linguist."
- SECONDARY TEACHER**—A teacher who teaches one or more subjects to high school students such as English, mathematics or social studies—grades taught may extend from grades 7-12.
- SECURITIES ANALYST**—See "Financial Analyst."
- SECURITIES CLERK**—A worker who compiles and maintains records of a firm's securities (stock purchases) transactions.
- SECURITY OFFICER**—A worker who plans and establishes the security procedures for a company engaged in manufacturing products or processing duty or materials for the federal government.

- SECURITIES SALES AGENT**—One who buys and sells in a trading division of an investment and brokerage firm for accounts of the firm.
- SEISMOLOGIST**—A geologist who studies and interprets seismic (earthquake data) to locate earthquakes and earthquake faults.
- SHEET METAL WORKER**—A worker who fabricates (builds), assembles, installs and repairs sheet metal products and equipment such as control boxes, drainpipes, ventilators, and furnace casings according to job order or blueprints.
- SILVICULTURIST**—A professional who establishes and cares for forest stands and manages tree nurseries and other forests to encourage natural growth of sprouts and seedlings of designated variety—measures and identifies trees.
- SOCIAL WORKER**—A professional worker who provides assistance, through counseling, activities, referrals, and other means to individuals and groups with problems such as poverty, illness, family maladjustment, antisocial behavior, financial mismanagement, inadequate housing and other concerns—may specialize in medical, psychiatric, industrial, school, child welfare, family, group, etc.
- SOCIOLOGIST**—A professional who conducts research into developmental, structure and behavior of groups of human beings and patterns of culture and social organization which have arisen out of group life in society—may specialize in criminology, industrial, rural, social problems, gerontology, urban, medical or in other areas.
- SOFTWARE SALESPERSON**—A worker who sells either wholesale or retail, computer programs and/or related materials.
- SOIL CONSERVATIONIST**—A professional who plans and develops coordinated practices for soil erosion control, moisture conservation and efficient soil use.
- SOIL SCIENTIST**—A scientist who studies soil (dirt) characteristics and maps soil types and investigates responses of soils to known management practices to determine use capabilities of soils and effects of alternative practices on soil production.
- SOUS CHEF (Chef Assistant)**—A chef who supervises and coordinates the activities of cooks and other workers engaged in preparing and cooking foodstuffs.
- SPECIAL AGENT**—A criminal investigator who investigates alleged or suspected criminal violation of Federal, State, or local laws to determine if evidence is sufficient to recommend prosecution—obtains evidence, maintains surveillances, performs undercover work, makes reports, testifies, etc.
- SPECIAL EDUCATION TEACHER**—A teacher who specializes in teaching those who are either mentally retarded, emotionally impaired or physically handicapped.
- SPEECH PATHOLOGIST**—A person who specializes in the diagnosis, treatment and prevention of speech and language problems—also engages in research related to human communications.
- STATISTICIAN (Applied)**—A professional mathematician who plans information collection, analyzes and interprets numerical information from experiments, studies, surveys and other sources and applies statistical methodology to provide information for either further research or statistical analysis.
- STOCKBROKER**—A worker who buys and sells stocks and bonds for individuals and organizations as a representative of a stock brokerage firm applying knowledge of securities, market conditions, government regulations and financial circumstances of customers.
- STONE MASON**—A construction worker who sets stone to build stone structures such as piers, walls and abutments, or lays walks, curbstones, or other special types of masonry using mason's tools.
- STRATIGRAPHER**—A professional who studies the relative position and order of succession of deposits containing or separating archeological fossil or plant material.
- STRUCTURAL ENGINEER**—An engineer who directs or participates in planning, designing or reviewing plans for erection of structures requiring stress analysis to determine load, size, shape, strength and type requirements.
- SURGICAL TECHNICIAN**—A health care worker who performs tasks such as washing, shaving, sterilizing, and other duties before, during and after surgical operation.
- SUPREME COURT JUSTICE**—See "Judges."
- SURGEON**—A medical doctor who specializes in surgery (precision cutting) to correct deformities, repair injuries, prevent diseases and improve function in patients.
- SURVEYOR (Land)**—A worker who specializes in planning, organizing and directing activities and personnel in the inspection of the earth's surface to determine precise location, measurement points, elevations, lines, areas, contours for construction, mapmaking, land divisions title claims, mining, etc.
- SYSTEMS ANALYST**—A professional worker who analyzes business or operating procedures to devise the most efficient methods of accomplishing work.

- SYSTEMS PROGRAMMER (Information)**—A professional worker who develops and writes natural and artificial language computer programs to store, locate and retrieve specific documents, data and information related to either science, engineering, medical text analysis, language, law, military or library science.
- TAILOR**—A professional worker who develops, designs and makes tailored (made-to-measure) garments such as suits, topcoats, overcoats and other dress clothing applying principles of garment design, construction and styling—may also specialize in stitching and machine sewing required for alteration of ready-made apparel.
- TAXONOMIST**—A plant or animal scientist who specializes in the identification and classification of species, organisms, etc.
- TECHNICAL ILLUSTRATOR**—A drafter who lays out and draws illustrations for reproduction in reference works, brochures and technical manuals dealing with the assembly, installation, operation, maintenance and repair of machines, tools, and equipment.
- TECHNICAL WRITER**—An individual who develops, writes, and edits materials for reports, manuals, briefs, and proposals, instruction books, catalogs, and related technical and administrative publications—may be related to a specialized area such as science, math, mechanics, etc.
- TECHNICIAN**—A worker who works in direct support of engineers or scientists utilizing the theoretical knowledge of fundamental scientific, engineering, mathematical or draft design principles to solve practical problems by implementation of techniques practically.
- TERRAZZO WORKER**—A construction worker who applies cement, sand, pigment (color) and marble chips to floors, stairways and cabinet fixtures to attain durable and decorative surfacing according to specifications and drawings.
- TISSUE TECHNOLOGIST**—A medical health care specialist who cuts, stains, mounts and prepares tissue for examination by a Pathologist—may assist in autopsy.
- TITLE ATTORNEY**—A lawyer who specializes in examining abstracts of titles, leases, contracts and other legal documents to determine ownership of land, gas, oil and mineral rights—tries to assist in trial of lawsuits related to the above.
- TOOL-AND-DIE MAKER**—A skilled worker who analyzes specifications, lays out metal stock, sets up and operates machine tools and fits and assembles parts to make and repair metal-working dies, cutting tools, jigs and fixtures, gages and machinist handtools—usually works by blueprints, sketches, descriptions, models, etc.
- TOOL PROGRAMER**—A skilled worker who plans a numerical control tape program to control contour-path machining of metal parts on automatic machine tools by means of magnetic or perforated tape.
- TOXICOLOGIST**—A professional who studies the nature and effects, and seeks to prevent, control and harness, the impact of toxics (poisons).
- TRAFFIC COURT MAGISTRATE (Justice of the Peace)**—A police judge who makes decisions about civil cases involving motor vehicle laws in which damages do not exceed the prescribed maximum by State Law and minor misdemeanor cases.
- TRAFFIC MANAGER**—An individual who directs and coordinates the traffic activities of an organization—involves routing transportation of goods and products, scheduling, loading, etc.
- TREE SURGEON**—A worker who prunes and treats ornamental and shade trees in yards and parks to improve their appearance, health and value.
- TRUST ADMINISTRATOR (Officer)**—A worker who directs and coordinates activities relative to creating and administering private, corporate, probate, and court-ordered guardianship trusts (safeguarding goods or items) in accordance with terms creating trust, decedent's will, probate court or court order.
- TUTOR**—A teacher who teaches academic subjects such as English, mathematics and foreign language to pupils requiring private instruction, adapting the curriculum to meet the individual's need—may teach in home.
- TYPESETTER**—A printing worker who tends and adjusts one or more linecasting machines equipped with tape converter unit to produce type composition automatically.
- UNDERWRITER**—An insurance worker who reviews individual applications for insurance to evaluate the degree of risk involved and accepts application, following the company's underwriting policies.
- UPHOLSTERER**—A skilled worker who engages in spreading, marking, cutting and sewing fabric padding, covering or trimming, or renovating upholstered articles—such as furniture, mattresses, vehicle seats, etc.

URBAN PLANNER—A professional city planner who develops comprehensive plans and programs for the utilization of land and physical facilities of cities, counties, and metropolitan areas.

UROLOGIST—A medical doctor who specializes in the diagnosis, treatment and prevention of diseases and disorders of genitourinary (organs and tract)—may perform surgery, if needed.

VETERINARIAN—A medical doctor who specializes in the diagnosis, treatment and prevention of diseases, disorders and injuries to animals—may perform surgery or autopsies when necessary—sometimes referred to as a "animal doctor."

VIROLOGIST—A microbiologist who specializes in the study of viruses and rickettsiae.

VOCATIONAL REHABILITATION COUNSELOR—A professional counselor who specializes in counseling handicapped individuals aimed at determining and facilitation job readiness, placement, preparation for and training, etc.

VOCATIONAL/TECHNICAL TEACHER—A teacher who specializes in teaching students the knowledge and skills necessary to prepare them for a partuilar vocation such as welding, food service, horticulture, mechanics, etc.

WELDER—A worker who is skilled in joining, surfacing, building or repairing structures or parts of weldable materials using such processes as arc, gas, resistance, solid state and others.

WHOLESALE TRADE SALES WORKER—One who sells items or merchandise to retailers, industrial and commercial institutions or professionals as well as other wholesalers.

WORD PROCESSOR—An office worker who uses word processing equipment to record, edit, store, and revise correspondence, reports, statistical tables, forms, and other materials.

APPENDIX B

DEFINITIONS OF SELECTED SKILL STATEMENTS

Definitions are provided for selected skill statements under the *Some Related Skills* categories. Due to the similarity of meaning, some words and phrases have been grouped together.

ABILITY TO SYNTHESIZE AND INTEGRATE VARIOUS FACTORS OF PRODUCTION—Having the ability to bring together all of the major aspects of production (raw materials, management, marketing, processing, shipping, customer service, quality control, personnel, etc.) to create a desired outcome—industrial engineers and plant managers tend to have this ability.

ABSTRACT REASONING—Being able to work with and apply ideas, concepts and situations which are difficult and hard to understand—able to think through that which is not concrete or easily understood from a practical perspective—mathematics majors, artists, engineers and architects demonstrate this ability.

ACUTE SPATIAL PERCEPTION . . . SPATIAL PERCEPTION—Having the ability to look at blueprints, flat drawings or diagrams and accurately visualize or project how it would appear in physical form in terms of height, width and depth.

AGILITY—Quality of nimbleness or being quick, light-footed—performing body movements with ease.

ANALYZE . . . BE ANALYTICAL . . . ANALYTICALLY, ETC.—To take a look at the various parts or pieces of an item, event or situation to determine its nature and how to gain a better understanding.

ANALYZE OR LISTEN INTROSPECTIVELY—Being able to understand the various aspects which explain's ones own or another's behavior—to be able to interpret feelings, thoughts and behavior adequately—psychologists and counselors tend to have this ability.

APPROPRIATE DECISIONS—Ability to make effective decisions at the right time which usually results in a suitable outcome.

APTITUDE FOR ACCURATE DETAIL—Ability to accurately perform tasks which involve much detail, carefulness and alertness.

BE OBJECTIVE . . . OBJECTIVITY . . . LISTEN OBJECTIVELY—Ability to listen or react to a statement, event or situation in a factual manner without allowing negative or positive experiences of the past to interfere with one's reaction—tendency to keep responses relatively free from biased emotions and feelings.

CRITICAL OBSERVATIONS . . . OBSERVE KEENLY . . . KEEN OBSERVATIONS—Alertness—able to pick up detail and notice things others may normally miss.

FINGER DEXTERITY—Ability to move one's fingers very rapidly or accurately when handling small items or objects.

FORMULATE AND DEFEND POSITION—Ability to present and back up with factual evidence, a belief, opinion or position—effective lawyers, teachers, judges, politicians and debaters demonstrate this skill.

FORM PERCEPTION—Ability to notice details in objects, pictures or life-like material—can see fine differences in shape, shading, figures and widths and lengths of lines.

INTERPERSONAL COMMUNICATION—Having the ability to skillfully speak, listen to and understand messages to and from other people, through the use of words, listening techniques, eye contact, body language, actions, etc.

INTERPRET—To provide a definition for something in a manner that can be more clearly understood by others.

MAINTAIN COMPOSURE IN STRESSFUL SITUATIONS OR UNDER PRESSURE—Being able to remain rational or “cool, calm and unrattled” in the face of danger, frustration, fear, disaster or unexpected negative events.

MAKE ANALOGIES—Ability to show a likeness or similarity, tell or make connections—to relate events, situations and problems to various aspects of the past or present.

MAKE EVALUATION . . . SOUND JUDGMENTS—Ability to look at an event, situation or problem from all major angles, and using decision making techniques along with one’s education, training and experiences, arrive at an accurate conclusion about what is occurring and, if applicable, how to react to it.

MANUAL DEXTERITY—Ability to work skillfully with one’s hands—not awkward, cumbersome or heavy handed—can perform most tasks which require the use of one’s hands, quickly and accurately.

MOTOR COORDINATION—Having the ability to work one’s fingers or hands in coordination with ones eyes to accomplish tasks accurately and with speed—this ability is especially important for those who type or work as surgeons.

PERSONAL CHARISMA—Having the personal qualities to draw or attract others to listen or observe or follow.

PHYSICAL STAMINA—Having the physical strength to endure periods of sickness, disease, fatigue, etc.

READ ARTICULATELY—To be able to orally read or speak clearly using correct pronunciation.

READ OR SPEAK ARTICULATELY—One who is able to read or speak clearly and properly.

SOLVE QUANTITATIVE PROBLEMS—Ability to, either naturally or with some effort, figure out answers to problems which involve numbers, measurement, amount or mathematics.

SYNTHETIC REASONING . . . SYNTHESIZE—Ability to integrate or put together parts that may or may not be diferent to arrive at a solution, answer or create a whole.

THINK LOGICALLY . . . LOGICAL THINKING—Thinking in which opinions and decisions are based on known factual evidence—being able to arrive at a decision following standard predictable reasoning procedures—thinking in a scientific way.

APPENDIX C

DEFINITIONS OF VALUES AND PERSONAL ATTRIBUTES

The following is a list of some of the less familiar definitions of terms and statements.

- ABILITY TO FRAME INQUIRY AND RESPOND OBJECTIVELY**—Ability to ask questions which can be logically and scientifically researched as well as respond to others relatively free from biased emotions and feelings—scientists tend to show this ability.
- ACHIEVEMENT**—The quality or value of making progress—being successful in competing or accomplishing something—to attain a goal or to finish or compete—some students and most professional athlete's place high value on achievement.
- ADAPTABILITY**—The quality of being able to adjust to and fit into different situations—able to alter one's behavior or thinking in order to suit the circumstances.
- AESTHETIC AWARENESS . . . AESTHETICS**—Ability or quality of being able to grasp and appreciate the beauty of an event, performance, situation, a physical or social environment, etc.—able to relate to the beauty evident in music, song, dance, pictures, structures, nature, behavior, etc.—architects, interior designers and artists tend to have this ability.
- ALERTNESS**—Ability to quickly recognize details and things that others may normally miss—tendency to observe closely—watchful—accountants, nurses and doctors tend to have this attribute.
- ANALYTICAL AND LOGICAL THINKING**—Being able to look at and understand the various aspects of an event, situation or item and arrive at a decision, using standard predictable reasoning procedures—scientists and other researchers tend to reflect this type of thinking.
- COMPETENT . . . CAPABLE**—Ability to physically or mentally or behaviorally perform or do—qualified, suitable and fitting.
- COMPETITIVE DRIVE**—The spirit of challenging and contesting others in order to win or gain something desired—demonstrate a liking for—rivalry and competition with others—athlete's often have this quality.
- CONSCIENTIOUS**—The quality of being sensitive to and aware of what one does or how one's behavior may be affecting another.
- CREATIVITY**—To try out new ideas, methods or techniques—doing what has never been done before—thinking and doing that which is different, untried—not sticking with that which is standard and expected.
- CURIOSITY AND ENTHUSIASM FOR GADGETRY**—Having a tendency to handle, take apart, ask questions—being excited about manipulating items and objects (machines, etc.).
- DECISIVENESS**—Being able to decide without delay—making a decision to do or act firmly and without doubt.
- DEDICATION**—Strongly committed to something valued to the point you are willing to go through, if necessary, much discomfort—sticking with something continually—being loyal—giving one's total effort.
- DEPENDABILITY**—The quality of being trustworthy and reliable—can be counted on to come through—to behave as expected—to perform or be responsible.
- DILIGENCE**—The quality of working and sticking to a task until done—staying busy and working without a lot of interruptions—steady.
- DIPLOMATIC**—Being careful to do what's appropriate considering the various sides of an issue—skill in managing and negotiating with others without hurting their feelings.
- DISCREET**—Being careful not to make mistakes—not likely to do something without thoughtful consideration.

- EMPATHY**—Being able to genuinely relate to by imagining oneself experiencing the emotions and feelings of another person—being able to “put yourself into the shoes of another person.”
- ENDURANCE**—The quality of being able to put up with and go through discomfort, painful circumstances, hardship, boredom or stress—ability to “hang in” during tough times and difficult situations.
- FLEXIBILITY**—Being capable of changing or altering a position, action or belief—not rigid or fixed to one way or method of operating or thinking or behaving.
- HEALTH**—Having good physical and emotional health—being sound, fit and strong in body—not sickly or diseased.
- IMAGINATION**—The quality of being able to think and form images in his or her mind of things, events, or ideas which do not exist presently in real life or have not been attempted in real life—this creative ability is quite evident in engineers and artists.
- INDEPENDENCE**—Desire to think or perform tasks and activities without being helped, controlled or assisted—like to do things on one’s own without support—freedom from authority and confining rules—a value often associated with those who want to be their own boss, own their own business or perform activities with little or no supervision.
- INDUSTRIOUS**—To work hard, continuously, steady . . . to keep busy.
- INITIATIVE**—Taking the lead . . . to start or move ahead or take the first step.
- INQUISITIVENESS**—The quality of being curious, wanting to know why and asking questions about—desire to gain knowledge about—lawyers and law enforcement officers often possess this quality.
- INTEGRITY**—The quality of being honest, truthful and doing what is morally right—uprightness—can be trusted to carry out or follow through without corruptibility.
- INTELLECTUAL GROWTH**—The value of being able to continually and increasingly gain knowledge, understanding and wisdom without stagnation or hinderance—effective teachers, researchers and judges tend to have this value.
- KNOWLEDGE**—The quality of being aware of and understanding facts, principles, truths, etc.—having information about.
- LIKE OR APPRECIATION FOR CHALLENGES**—The quality of desiring to be given an opportunity to achieve something that requires special or extra effort, skill or testing.
- LINGUISTIC ABILITY**—Having the ability to analyze and understand the structure of languages—able to see relationships of sound, make comparisons, forms, etc.
- LOYALTY**—A strong sense of commitment to something—unbroken support for—faithful and obligated to.
- MENTAL AND EMOTIONAL WELL-BEING**—The quality of being able to remain calm, make appropriate decisions and control one’s emotions in stressful or extremely difficult circumstances—not easily shaken, emotionally or mentally—effective teachers, social workers and law enforcement officers demonstrate this quality.
- PERSEVERANCE**—The quality of not quitting—never giving up—steadfastness—to keep on “keeping on”—“stick-to-itness.”
- PERSUASIVE**—Ability to influence and draw others to think, do or behave in a certain way—effective musicians, politicians and teachers tend to have this quality.
- POISE**—Being able to remain calm, orderly and unruffled—does not fall apart or lose one’s order or sense of purpose or performance easily—effective performers, lecturers and TV broadcasters usually demonstrate this quality.
- POISE AND COMPOSURE UNDER CLOSE PUBLIC SCRUTINY AND CRITICISM**—Being able to maintain control over one’s thoughts and actions and continue in one’s tasks or activities calmly while being observed (or having something you are responsible for observed) and/or possibly critized by others—entertainers, writers, politicians and many government workers usually possess this quality.
- POWER**—The value of having authority, control or command over others—influence or ability to do or act with great flexibility and persuasion.
- PRACTICAL**—That which is concrete, down-to-earth and clearly understood . . . can be physically observed, understood, performed or put to use.

- PRECISENESS . . . PRECISION**—Being exact, accurate and to the point—accounting, skilled machine workers and electronic technicians have to have this ability.
- PRESTIGE**—Being held in high regard or importance by others—someone whose achievements and/or abilities have resulted in great influence and persuasion in the lives of many.
- REFLECTIVE NATURE**—A quality of being thoughtful—thinking about something which is presently occurring and associating it with something else or other like events, the past, etc.—going over and making connections mentally.
- RELIGIOUS FAITH**—Belief in a supreme power or God—having to do with a relationship with God which includes and goes beyond logic.
- RESOURCEFULNESS**—The quality of being able to determine what and how to solve a problem, get through difficult situations, particularly during times when standard resources may be few or unavailable.
- RESPONSIBILITY**—The quality of being trustworthy and dependable—being able to adequately carry through, oversee or supervise—can be relied on to do or perform as expected.
- SECURITY**—The value of being relatively safe from danger, hurt, discomfort or instability—firmly fixed and sure—occupationally speaking, being sure of financial income and job stability.
- SELF-DISCIPLINE**—The quality of being able to control and positively direct one's emotions, feelings, thoughts and behavior.
- SENSITIVITY TO MULTIPLE PERSPECTIVES**—The quality of being open and understanding of different viewpoints, techniques and methods of operation, uses, etc.
- SENSITIVITY TO THE INCONSISTENCIES OF HUMAN BEHAVIOR**—The quality of being understanding, helpful and patience with those who demonstrate abnormal, antisocial and self-defeating behaviors—psychologists, counselors and religious workers often have this quality.
- SKILL**—Being capable and good at something—ability to perform or do something very well either naturally or as a result of hard work or continuous practice, training or experience.
- SPIRIT OF SCIENTIFIC INQUIRY**—Thinking and questioning in a manner and with a spirit which tends to reflect a preference for and a use of the laws of scientific procedure.
- SPONTANEOUS**—Ability to respond quickly and effectively to unexpected events and surprise—responding by impulse and without prior warning or preparation.
- TACT . . . TACTFUL . . . TACTFULNESS**—The quality of being able to say and do the right thing around people—sensitive to the feelings of others when interacting—most nurses and counselors tend to show this quality.
- THOROUGHNESS**—Tendency to carry out an endeavor to completion and in detail—leaving nothing undone—fully finishing something—not generally or partially, but carefully and completely done.
- VERSATILITY**—The quality of being able to readily change or move into something different—those who are physically versatile and can move their bodies in various directions and positions easily—can easily adapt to and fit into many circumstances or environments.
- WILLINGNESS TO TAKE RISKS**—The tendency to try something that might be dangerous or result in failure, disappointment or loss—not afraid to try something new—usually take chances in spite of the possibility of unpleasant consequence—certain kinds of construction workers and entrepreneurs demonstrate this quality.
- WISDOM**—Having good judgment—skill in being able to make appropriate decisions—applying knowledge in a way in order to do what is right and true—those who aspire to be politicians or judges often seek to develop this quality.

APPENDIX D

COLLEGE MAJORS AND RELATED HIGH SCHOOL COURSES

The following lists the 61 college major fields included in this directory and the high school courses or areas to which they are closely related. Titles of courses vary greatly among high schools as well as at different grade levels. In some instances, high school courses which are considered important in preparing for a particular field of study, although not as directly related, have been included. The list is not all-inclusive and is only intended as a general guideline, particularly for students, parents, teachers and new counselors. Educators will need to exercise professional expertise for local courses not listed and insert them into the appropriate categories. It is strongly suggested that students consult with counselors concerning preparatory courses related to particular fields of study.

COLLEGE MAJOR	RELATED HIGH SCHOOL COURSES OR PROGRAMS
Accounting.....	Accounting; Bookkeeping; Business Math; etc.
Aerospace Engineering.....	Physics; Drawing; Mechanical Drawing; Math; Arithmetic; Science; Physical Science; Mechanics; etc.
Agriculture.....	Science; Earth Science; Gardening; Farm Science; Food Science; Biology; Zoology; etc.
Allied Health Assisting and Technology	Health; Biology; Nursing Aide; Science; Body Mechanics; First Aid; etc.
Allied Health Science	Physiology; Biology; Chemistry; Health; Sciences; etc.
Anthropology	Social Studies; History; Anthropology; Sociology; Psychology; Foreign Language; etc.
Architecture.....	Drawing; Architectural Drawing; Drafting; Math; Geometry; Arithmetic; Blueprint Reading; Art; Interior Decorating; Sculpture; etc.
Art	Art; Drawing; Art History; Jewelry; Pottery; Watercolors; Sketching; Crafts; Photography; Theater; Painting; etc.
Astronomy.....	Physical Science; Science; Mathematics; Arithmetic; Physics; Earth Science; Biology; etc.
Banking and Finance	Banking; Accounting; Business Math; Bookkeeping; Consumer Math; Business; Economics; etc.
Biology	Biology; Science; etc.
Botany.....	Biology; Science; Landscape Gardening; etc.
Business Administration and Management.....	Business; Management; Business Law; Economics; etc.
Chemical Engineering.....	Chemistry; Science; Physical Science; Earth Science; Math; Arithmetic; Physics; etc.
Chemistry	Chemistry; Science; Physical Science; Earth Science; Math; Arithmetic; Physics; Foods or Cooking; etc.
Civil Engineering	Math; Arithmetic; Architectural Drawing; Industrial Arts; Science; Earth Science; Physical Science; Physics; etc.
Communications	English; Business; or Technical English; Speech; Drama; Journalism; Advertising; Sales; etc.

COLLEGE MAJOR**RELATED HIGH SCHOOL COURSES OR PROGRAMS**

Computers	Computer Science; Science; Physical Science; Math; Arithmetic; English; Computer Programming; Computer Terminology; etc.
Construction	Mechanics; Building Maintenance; Electricity; Industrial Arts; Landscape Gardening; Physical Education; Diesel Equipment Repair; etc.
Culinary Arts	Food; Services; Foods; Cooking; Home Economics, etc.
Economics	Economics; Bookkeeping; Business Math; Home Economics; etc.
Education	Public Speaking; English; Science; Math; Psychology; etc.
Electrical/Electronics Engineering	Electricity; Electronics; Automotive Tune-up; Math; Arithmetic; Radio/TV Repair; Blueprint Reading; Science; Physical Science; Physics; etc.
Electrical/Electronics Technology	Electricity; Electronics; Small Engine Repair; Mechanics; Math; Science; Radio/TV Repair; etc.
English	English; Language Arts; Speech; Writing; Literature; Reading; Speed Reading; etc.
Food and Beverage Management/Service	Foods; Cooking; Home Economics; Food Service; Sales; Food Science; etc.
Foreign Language	Foreign Language; Latin; Languages; etc.
Forestry	Science; Biology; Earth Science; Chemistry; Physics; Math; Arithmetic; etc.
Geography	Geography; World History; Physical Geography; etc.
Geology	Earth Science; Science; Physical Science; etc.
Health Administration, Management and Related Services	Business; Management; Health; Economics; Science; Business Math; etc.
History	History; Social Studies; etc.
Home Economics	Home Economics; Cooking; Sewing; Clothing; Child Care; Foods; Health; Consumer Math; etc.
Horticulture	Biology; Science; Landscape Gardening; etc.
Hotel/Motel Management ...	Business; Economics; Management; etc.
Industrial Engineering	Mechanical Drawing; Math; Physical Science; Business; Management; etc.
Industrial and Precision Technology	Machine and Metal Shop; Blueprint Reading; Science; Applied Math; Drafting; Mechanical Drawing; Industrial Arts; Graphic Arts; etc.
Law	Public Speaking; Debate; Forensics; English; Technical English; Government; Civics; Law; etc.
Legal and Protective Services	Government; Sociology; Social Studies; Civics; ROTC; etc.
Library and Information Sciences	English; History; Social Studies; Reading; Language Arts; etc.
Marketing and Distribution	Sales; Advertising; Business; Economics; Dramatics; Merchandising; Psychology; etc.
Mathematics	Math; Arithmetic; Statistics; etc.
Mechanical Engineering	Math; Arithmetic; Physical Science; Science; Mechanics; etc.
Mechanics and Related Services	Automotive Mechanics; Small Engine Repair; Diesel Mechanics; etc.
Medicine	Physiology; Biology; Chemistry; Math; Arithmetic; Science; Anatomy; etc.

COLLEGE MAJOR**RELATED HIGH SCHOOL COURSES OR PROGRAMS**

Metallurgical and Mining Engineering	Metal Shop; Math; Arithmetic; Science; Physical Science; Physics; Earth Science; Chemistry; etc.
Military Science	ROTC; Government; Law; etc.
Nursing and Related Sciences	Biology; Physiology; Health; First Aid; Nursing Aide; etc.
Performing Arts	Theater Arts; Dramatics; Public Speaking; Choir; Orchestra; Band; Dance; Physical Education; etc.
Philosophy	Literature; Art History; Music History; Language Arts; Debate; Forensics; Speech; etc.
Physics	Physics; Math; Arithmetic; Physical Science; Science; Earth Science; etc.
Physiology	Physiology; Science; Biology; etc.
Political Science	Civics; Government; Social Studies; Psychology; etc.
Psychology	Psychology; Social Studies; etc.
Recreation and Leisure	Physical Education; Health; Art; etc.
Religion and Theology	Bible History; Sociology; Religion; History; Social Studies; Philosophy; etc.
Secretarial Science	Business; Clerical Studies; Typing; Shorthand; Steno-transcription; Business Machines; Word Processing; Office Practices; etc.
Social Work	Social Studies; Sociology; Home Economics; Child Care; Health; Psychology; etc.
Sociology	Social Studies; Sociology; Social Problems; Modern Problems; etc.
Transportation	Driver's Education
Zoology	Zoology; Biology; Physiology; Science; etc.

APPENDIX E

NUMBER OF DEGREES AWARDED BY FIELDS

Listed below are the numbers of persons receiving associate, bachelor's, master's, and doctor's or first professional degrees in the fields described in this book. Data are for the 1983-84 years and come from the Center for Statistics (formerly the National Center for Education Statistics) of the U.S. Department of Education. Where there is no data available, the field is not offered at this level, or data is not broken out for this category, a dash (—) indicates the nonavailability of information. Military science majors do not include degrees offered by the U.S. service academies.

Field	Associate	Bachelor's	Master's	Doctor's or First Professional
Accounting	6,126	47,692	3,297	53
Aerospace Engineering	—	2,534	562	106
Agriculture	6,879	28,542	6,406	1,921
Allied Health	26,617	64,270	17,443	1,163
Anthropology	—	2,693	740	327
Architecture	1,495	9,186	3,223	84
Art	12,221	16,210	2,819	147
Astronomy	—	73	56	56
Banking and Finance	—	17,576	4,433	49
Biology	1,209	30,402	2,799	782
Botany	—	569	404	266
Business Administration and Management	44,041	110,952	47,188	614
Chemical Engineering	—	7,475	1,514	330
Chemistry	—	10,704	1,667	1,774
Civil Engineering	—	9,693	3,146	369
Communications	3,752	40,165	3,656	219
Computers	12,824	32,172	6,190	251
Construction	2,179	11	16	0
Culinary Arts	—	3,399	778	59
Economics	—	20,719	1,891	729
Education	12,824	92,382	77,187	7,473
Electrical/ Electronics Engineering	—	19,943	5,078	585
Engineering Technology	57,735	17,712	567	2
English	635	33,739	5,818	1,215
Foreign Language	326	9,479	1,773	462
Forestry	—	1,748	539	119
Food and Beverage Management/ Service (<i>see</i> Culinary Arts)	—	—	—	—
Geography	—	3,195	583	120
Geology	—	6,549	1,514	315

Field	Associate	Bachelor's	Master's	Doctor's or First Professional
Health Administration, Management, and Related Services	—	3,014	2,176	27
History	—	16,917	1,937	361
Home Economics	9,247	12,917	1,644	220
Horticulture	—	2,859	887	362
Industrial Engineering	—	3,937	1,557	119
Law	1,813	1,272	1,802	36,540
Legal and Protective Services	11,983	12,654	1,219	31
Library and Information Services	155	255	3,815	74
Marketing and Distribution	15,214	3,410	40	1
Mathematics	783	13,211	2,741	695
Mechanical Engineering	—	16,629	2,797	319
Medicine	—	—	—	16,343
Metallurgical and Mining Engineering	—	1,178	374	409
Military Science	87	195	127	0
Nursing	41,643	33,092	5,744	220
Performing Arts	2,291	8,005	1,607	113
Philosophy	144	3,617	1,090	238
Physics	—	3,907	1,532	953
Physiology	—	443	156	188
Political Science	4,027	25,719	1,769	457
Psychology	1,088	39,872	8,002	2,973
Recreation and Leisure	731	4,752	555	27
Religion and Theology	712	8,732	5,698	8,144
Secretarial Science	21,070	925	0	0
Social Work	—	8,824	8,547	227
Sociology	2,734	13,145	1,008	520
Transportation	—	1,698	194	0
Zoology	—	3,007	804	743

APPENDIX F

PUBLISHERS

The following lists the addresses (unless indicated elsewhere) of the publishers, agencies, and organizations whose books or booklets have been cited in this directory. While most of the books can be found in libraries (career, school, college and public) and bookstores in some instances, it may be necessary to contact the publisher directly.

- Abbott Press, P. O. Box 433, Ridgefield, NJ 07657
 Acropolis Books, 2400 17th St., N.W., Washington, D.C. 20009
 American Anthropological Association, 1203 New Hampshire Ave., N.W., Washington, D.C. 20009
 American Astronomical Society, 1816 Jefferson Place, N.W., Washington, D.C. 20036
 American Bankers Association, 1120 Connecticut Ave., N.W., Washington, D.C. 20036
 American Bar Association, 1153 East 60th Street, Chicago, IL 60637
 American Chemical Society, 1155 16th St., N.W., Washington, D.C. 20036
 American Farm Bureau Federation, 225 Touhy Ave., Park Ridge, IL 60068
 American Federation of Information Processing Societies, 1899 Preston White Dr., Reston, VA 22091
 American Hotel and Motel Association, 888 Seventh Ave., New York, NY 10019
 American Institute of Architects, 1735 New York Ave., N.W., Washington, D.C. 20006
 American Institute of Physics, 335 E. 45th St., New York, NY 10017
 American Library Publishing Co., Inc., 275 Central Park West, New York, NY 10024
 American Medical Association, 535 N. Dearborn St., Chicago, IL 60610
 American Philosophical Association, University of Delaware, Newark, Delaware 19716
 American Physical Society, 335 45th St., New York, NY 10017
 American Physiology Society, 9650 Rockville Pike, Bethesda, MD 20814
 American Phystopathological Society, 3340 Pilot Knot Road, St. Paul, MN 55121
 American Political Science Association, 1527 New Hampshire Ave., N.W., Washington, D.C. 20036
 American Psychological Association, 1200 17th St., N.W., Washington, D.C. 20036
 American Society for Metals, Metals Park, OH 44073
 American Society of Civil Engineers, 345 E. 47th St., New York, NY 10017
 American Society of Mechanical Engineers, 345 E. 47th St., New York, NY 10017
 American Society of Zoologists, Box 2739, California Lutheran College, Thousand Oaks, CA 91360
 American Sociological Association, 1771 N St., N.W., Washington, D.C. 20036
 American Trucking Association, 2200 Mill Rd., Alexandria, VA 22314
 American Womens Society of Certified Public Accountants, 500 N. Michigan Ave., Suite 1400, Chicago, IL 60611
 Arco (Division of Prentice-Hall, Inc.), 1 Gulf and Western Bldg., New York, NY 10023
 The Associated General Contractors of America, 1957 E St., N.W., Washington, D.C. 20006
 Association of American Railroads (AAR), American Railroad Bldg., 50 F St., N.W., Washington, D.C. 20001
 Ballantine Books Inc., 201 E. 50th St., New York, NY 10022
 Bantam Books Inc., 666 Fifth Ave., New York, NY 10019
 Barnes and Noble Books, 10 E. 53th St., New York, NY 10022
 Barron Enterprises, 714 Willow Glenn Rd., Santa Barbara, CA
 Barron's Educational Series Inc., 113 Crossways Park Drive, Woodbury, NY 11797
 Bobbs-Merrill Co., Inc., 630 Third Ave., New York, NY 10017
 Career Publishing Inc., 910 W. Main St., Orange, CA 92667
 Century Twenty-One Publishing, P.O. Box 8, Saratoga, CA 92507
 Chronicle Guidance Publications, Inc., P.O. Box 1190, Moravia, NY 13118-1190
 Club Managers Association of America, P.O. Box 34482, Bethesda, MD 20817

Collier Books (Division of McMillan), 866 Third Ave., New York, NY 10022
Contemporary Books Inc., 180 North Michigan Ave., Chicago, Illinois 60601
Crown Publishers Inc., One Park Ave., New York, NY 10016

Dodd Mead and Co., 79 Madison Ave., New York, NY 10017
Doubleday Publishing Co., 245 Park Ave., New York, NY 10017
Dow-Jones Irwin, 1818 Ridge Rd., Homewood, IL 60430

Elsevier Science Publishing Co., Inc. 52 Vanderbilt Ave., New York, NY 10017
E. P. Dutton, 2 Park Ave., New York, NY 10016

Facts on File, Inc., 460 Park Ave., S., New York, NY 10016
Ferris State College, School of Graphic Arts Dept., Big Rapids, MI 49307
Free Press, 866 Third Ave., New York, NY 10022
Future Farmers of America (FFA), National FFA Center, Box 15160, 5632 Mt. Vernon Memorial Hwy., Alexandria, VA 22309

Garrett Park Press, P.O. Box 190, Garrett Park, MD 20896.
General Electric Company, P.O. Box 861, Gainesville, FL 32602-0864
Geological Society of America, P.O. Box 9140, 3300 Penrose Place, Boulder, CO 80301
Guidepost to Officiating, P.O. Box 93112, Cleveland, OH 44101

Harper and Row Publishers, Inc., 10 E. 53rd St., New York, NY 10022
Harvard Commons Press, 535 Albany St., Boston, MA 02188
Holt, Rinehart and Winston, 383 Madison Ave., New York, NY 10017

Impact Publications, 10655 Big Oak Circle, Manassas, VA 22111
International Brotherhood of Electrical Workers, 1125 15th St., N.W., Washington, D.C. 20005
International Publishing Co., 381 Park Ave. S., Suite 1301, New York, NY 10016

Julian Messner (Division of Simon and Schuster), Simon and Schuster Bldg., 1230 Avenue of the Americas, New York, NY 10020

Liberty Press (Division of Oldham and Associates), 500 W. 1200 St., Orem, UT 84052
Lodestar Books (Division of E. P. Dutton), 2 Prk Ave., New York, NY 10016

Lothrop, Lee and Shepard Books, 105 Madison Ave., New York, NY 10016

Macmillan Publishing Co., Inc., 866 Third Ave., New York, NY 10022
McKnight Publishing Co., 809 W. Detweiller, Peona, IL 61615
The Metallurgical Society of AIME, 420 Commonwealth Drive, Warrendale, PA 15086
The MIT Press, 28 Carleton St., Cambridge, MA 02142
Modern Language Association of America, 10 Astor Place, New York, NY 10003
Monarch Press (Division of Simon and Schuster, Inc.), 215 Park Ave. S., New York, NY 10003
Morrow, William and Co., Inc., 105 Madison Ave., New York, NY 10016

National Association for the Education of Young Children, 1834 Connecticut Ave., N.W., Washington, D.C. 20009
National Association of Social Workers, 7981 Eastern Ave., Silver Spring, MD 20910
National Center for Study of History, 3914 Harrison St., N.W., Washington, D.C. 20010
National Health Council, 622 Third Ave., 34th Floor, New York, NY 10017
National Institute for the Foodservice Industry, 10 N. Wacker Drive, Chicago, IL 60606
National League of Nursing, 10 Columbus Circle, New York, NY 10019
National Textbook Co., 4255 Touhy Ave., Lincolnwood, IL 60466

Penguin Books, Inc., 40 W. 23rd St., New York, NY 10010
Perigee Press, Box 639, Colonial Drive, Walpole, NH 03608
Peterson's Guides, Inc., P.O. Box 2123, Princeton, NJ 08543-2123
Plenum Publishing Corp., 233 Spring St., New York, NY 10013
Prentice-Hall Inc., Rte. 9W, Englewood Cliffs, NJ 07632
The Putnam Publishing Group, 200 Madison Ave., New York, NY 10016
Pyramid Publishing Co., 815 E. St., Box 12176, San Diego, CA 92112

Quill (Division of William Morrow & Co., Inc.), 105 Madison Ave., New York, NY 10016

Rawson Wade Publishers, Inc., New York, NY
The Rosen Publishing Group, Inc., 29 E. 21st St., New York, NY 10010

School of Visual Arts Press, Ltd., 1710 16th St., N.W., Washington, D.C. 20009

Simon and Schuster, Inc., The Simon and Schuster
Bldg., 1230 Avenue of the Americas, New York,
NY 10020

St. Martin's Press, Inc., 175 Fifth Ave., New York,
NY 10010

Spocon Career Association, 235 Park Avenue, S.,
New York, NY 10003

United States Government Printing Office,
Washington, D.C. 20402

Walker Publishing Co, Inc., 720 Fifth Ave., New
York, NY 10019

Watson-Guptill Publishers, Inc., 1 Astor Plaza,
1515 Broadway, New York, NY 10036

Wiley, John and Sons, Inc., 605 Third Ave., New
York, NY 10158

Word Book Inc., Merchandise Mart Plaza, Rm
510, Chicago, IL 60654

Writers Digest Books, 9933 Alliance Road, Cincin-
nati, OH 45242

BIBLIOGRAPHY OF SOURCES FOR FURTHER EXPLORATION

BOOKS AND DIRECTORIES

- American Medical Association. *Allied Health Education Directory—13th Edition*. Chicago: AMA, 1985.
- American Medical Association. *Helping Hand: Horizons Unlimited in Medicine*. Chicago: AMA, 1983.
- American Philosophical Association. *Careers for Philosophers*. Newark, NJ: APA, 1984.
- Appalachia Educational Laboratory, Inc. *Career Information System Guide*. Bloomington, IL: McKnight Publishing Co., 1978.
- Asbell, Bernard. *What Lawyers Really Do: Six Lawyers Talk About Their Life and Work*. New York: Peter H. Wyden, Inc., 1970.
- Bell, John A., and Lonny D. Garvey. *Opportunities in the Machine Trades*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1986.
- Books in Print*, 1986-87, Vol. 7. New York: R. R. Bowker Company, 1986.
- Bradley, Jeff. *Young Person's Guide to Military Science*. Cambridge, MA: Harvard Common, 1983.
- Brechner, Irv. *Getting into Computers: A Career Guide to Today's Hottest New Field*. New York: Ballantine Books, 1983.
- Caprione, Carol Ann. *Opportunities in Food Services*. Lincolnwood, IL: VGM Career Horizons, National Textbook Co., 1985.
- College Major Occupation Index*. Bloomington, IN: McKnight Publishing Co., 1980.
- Cleveland Institute of Electronics, Inc. *CIE Independent Home Study in Electronics*. Cleveland, OH: CIE, 1976.
- Cornelius, Hal. *Career Guide for Paralegals*. New York: Monarch Press, 1983.
- Dickinson College. *The Liberal View: A Career for Dickinson College*. Carlisle, PA: Dickinson College, n.d.
- D'Orazio, Leo and Donald F. Snook. *Opportunities in Health and Medical Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1983.
- Encyclopedia of Associations*. 21st Edition. Detroit, MI: Gale Research Company, 1986.
- Ettinger, Blanche. *Opportunities in Secretarial Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1984.
- Ferris State College. *School Bulletin*. Big Rapids, MI: FSC, 1984-86.
- Fine, Janet. *Opportunities in Teaching Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1977.
- Gearhart, Susan W. *Opportunities in Modeling Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1981.
- Gerardi, Robert. *Opportunities in Modeling Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1984.
- Gentz, William. *Career Opportunities in Religion*. New York: Hawthorn Book Inc., 1979.
- Gordon, Alice L., et al. *Career Exploration in Marketing and Distribution*. Belmont, MA: Contract Research Corp., 1975.
- Haas, Kenneth. *Opportunities in Sales and Marketing*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1982.
- Hagerty, Joseph D., and John E. Heer, Jr. *Opportunities in Civil Engineering*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1981.

- Hagerty, Joseph, Earl Gerhard, and Charles Plank. *Opportunities in Chemical Engineering*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1979.
- Heim, Kathleen and Peggy Sullivan. *Opportunities in Library and Information Science*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1985.
- Hoffman, Vicki. *New Directions For the Professional Nurse. Exploring Your Career Options and Discussing Great Escapes*. New York: Arco, 1984.
- Hunig, Lucille J, and Richard T. Broad. *Foreign Languages and Careers*. New York: Modern Language Association.
- Ito, Dee. *Careers in the Visual Arts*. New York: School of Visual Arts Press, Ltd., 1984.
- Jensen, Clayne R., and Jay H. Naylor. *Opportunities in Recreation and Leisure*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1984.
- Koller, William. *Your Career in Construction*. New York: Arco Publishing Co., Inc., 1978.
- Landis, Benson Y. *Careers of Service in the Church*. New York: H Evans and Co., Inc., 1964.
- Lee, Mary P., and Richard Lee. *Opportunities in Animal and Pet Care Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1984.
- Lepick, Kling. *Opportunities in Computer Science Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1984.
- Liberal Arts and Sciences—Skills—Career Opportunities*. Ann Arbor, MI: University of Michigan.
- Liebers, Arthur. *You Can Be A Mechanic*. New York: Lothrop, Lee and Shepard Co., 1975.
- Literary Market Place—The Directory of American Book Publishing*. New York: R. R. Bowker Company, 1985.
- Malnig, Lawrence R., and Anita Malnig. *What Can I Do With a Major In . . . ?* Ridgefield: Abbott Press, 1984.
- Malnig, Lawrence R., and Sandra L. Morrow. *What Can I Do With a Major In . . . ?* Jersey City, NJ: Saint Peter's College Press, 1980.
- McKnight Publishing Co. *College Major—Occupation Index*. Bloomington, IN: McKnight, 1980.
- Moore, Dick. *Opportunities in Acting*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1981.
- Morrow, Jodie Berlin and Myrna Lebov. *Not Just a Secretary*. New York: Wiley Press, 1984.
- Muller, Peter. *The Fast Track to the Top Jobs in Computer Careers*. New York: Putnam Publishing Group, 1983.
- Munneke, Gary A. *Opportunities in Law Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1981.
- National Availability Survey, Inc. *The Manual of Professional Career Fields*. Cincinnati, OH: P.P.I., 1980.
- Occupational Outlook Handbook*. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics; Bulletin 2250, U.S. Government Printing Office, 1986.
- Paradis, Adrian. *Opportunities in Banking*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1980.
- Paradis, Adrian A. *Opportunities in Transportation Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1984.
- Pey, Arthur and Albert L. Furbay. *College Student Guide to Career Planning*. New York: Simon and Schuster, 1984.
- Place, Irene and Leonard Roberson. *Opportunities in Management*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1981.
- Quinn, Carin. *Your Career As A Physician*. New York: Arco Career, 1979.
- Rafferty, Robert. *Careers in the Military—Good Training for Civilian Life*. New York: Elsevier/Nelson Books, 1980.
- Rosenberg, Martin. *Opportunities in Accounting*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1983.
- Rucker, T. Donald and Martin D. Keller. *Planning Your Medical Career: Traditional and Alternative Opportunities*. Garrett Park, MD: Garrett Park Press, 1986.

- Schmolling, Paul Jr., William R. Burger and Merrill Youkeles. *Careers in Mental Health: A Guide To Helping Occupations*. Garrett Park, MD: Garrett Park Press, 1986.
- Shackleton, S. Paul. *Opportunities in Electronic and Electrical Engineering*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1982.
- Snook, Donald. *Opportunities in Hospital Administration*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1984.
- Stinchcomb, James. *Opportunities in Law Enforcement and Criminal Justice*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1985.
- Sumichrast, Michael. *Opportunities in Building Construction Trades*. Lincolnwood, IL: VGM Career Horizons, 1982.
- The World Book Encyclopedia*. 1977, 1985 editions.
- Thomas Jefferson University—College of Allied Health Sciences. *Health Careers Guidance Manual*. Philadelphia, PA, 1985.
- The College Board. *Index of Majors, Eighth Edition*. New York: CEEB, 1985-86.
- Reyes-Guerra, David R. and Alan M. Fischer. *Peterson Guide to Undergraduate Engineering Study*. Princeton, NJ: Peterson's Guides, 1981.
- U.S. Department of Labor. *Dictionary of Occupational Titles*. Fourth Edition, 1977. Washington, DC: DOT, 1977.
- United States Army. *Army Occupational Handbook*. U.S.A., 1983-84.
- Virginia Polytechnic Institute and State University. *A Guide to Majors and Careers at Virginia Tech*. Blackburg, VA.
- Weber, Robert M. *Opportunities in Automotive Service*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1984.
- William, Pattis S. *Opportunities in Advertising Careers*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1985.
- Winter, Charles A. *Opportunities in Biological Sciences*. Lincolnwood, IL: VGM Career Horizons, National Textbook, 1985.

BOOKLETS, PAMPHLETS, AND MONOGRAPHS

- AFIPS Press. *A Look Into Computer Careers*. Reston, VA: 1984.
- American Anthropological Association. *On Becoming an Anthropologist*. Washington, DC.
- American Anthropological Association. *What is Anthropology?* Washington, DC.
- The American Astronomical Society. *A Career in Astronomy*. Newark, NJ, 1971.
- American Bar Association. *Law As A Career*. Chicago, IL, 1982.
- American Bar Association and Association of American Law Schools. *Prelaw Handbook*. Chicago, IL, 1984-85.
- American Bankers Association. *Your Career in Banking*. Washington, DC, 1980.
- American Chemical Society. *Futures Through Chemistry—Charting A Course*. Washington, DC, 1985.
- American Farm Bureau Federation. *There's A New Challenge in Agriculture*. Park Ridge, 1974.
- American Geological Institute. *Geology: Science and Profession*. Falls Church, VA, 1976.
- American Hotel and Motel Association. *Careers in the Hospitality Industry*. New York, 1979.
- American Institute of Physics. *Physics: A Career for You?* New York, 1977.
- American Library Association. *Library and Information Careers in the 80's*. Chicago, IL, 1983.
- American Marketing Association. *Careers in Marketing*. Chicago, IL, 1976.
- American Physical Society. *Physics In Your Future*. New York, n.d.
- The American Physiological Association. "Careers in Physiology." Bethesda, MD, n.d.
- The American Political Science Association. *Alternative Careers for Political Scientists*. Washington, DC, 1984.
- The American Psychological Association. "Careers in Psychology." Washington, DC, 1977.
- American Society of Civil Engineers. *Is Civil Engineering for You?* New York, n.d.
- American Society for Metals. *Introducing . . . An Exciting New World: The World of Metallurgy and Materials Engineering*. Metals Park, n.d.
- American Society of Mechanical Engineers. *A Career for the Future*. New York, n.d.
- American Society of Zoologists. *Careers in Animal Biology*. Thousands Oaks, CA, n.d.

- American Trucking Associations, Inc. *Meet the Proud Crowd*. Washington, DC, n.d.
- American Women's Society of Certified Public Accountants. *Accounting: A Career for Women*. Chicago, IL, n.d.
- The Associated General Contractors of America. "Construction." Washington, DC, n.d.
- Association of American Geographers. *Geography: Tomorrow's Career*. Washington, DC, n.d.
- Association of American Geographers. *Careers In Geography*. Washington, DC, n.d.
- Association of American Railroads. *Human Side of Railroading*. Washington, DC, n.d.
- Botanical Society of American School of Biological Sciences, *Careers in Botany*. University of Kentucky, Lexington, KY 40506.
- Careers, Inc. "Actor-Actress." *Career Brief*. Largo, FL: Career, 1984.
- "Mathematician." *Career Brief*. Largo, FL: Careers, 1985.
- "Aerospace Engineer." *Career Brief*. Largo, FL: Careers, 1983.
- "Home Economist." *Career Brief*. Largo, FL: Careers, 1983.
- "Social Workers." *Career Brief*. Largo, FL: Careers, 1981.
- "Librarian." *Career Brief*. Largo, FL: Careers, 1981.
- "Salesworkers, Wholesale Distribution." *Career Brief*. Largo, FL: Careers, 1979.
- "Manager." *Career Brief*. Largo, FL: Career, 1982.
- "Hotel-Motel Manager." *Career Brief*. Largo, FL: Careers, 1983.
- "Health Services Administrator." *Career Brief*. Largo, FL: Careers, 1984.
- "Secretary." *Career Brief*. Largo, FL: Careers, 1985.
- "Horticulturist." *Career Summary*. Largo, FL: Careers, 1983.
- "Engineers, General." *Career Brief*. Largo, FL: Careers, 1983.
- "Accountants." *Career Brief*. Largo, FL: Careers, 1981.
- "Bank Careers." *Career Brief*. Largo, FL: Careers, 1980.
- "Electrical Engineering Technician." *Career Summary*. Largo, FL: Careers, 1980.
- "Recreation/Parks Administrator." *Career Brief*. Largo, FL: Careers, 1980.
- "Farmers." *Career Brief*. Largo, FL: Careers, 1983.
- "Agricultural Researchers." *Career Brief*. Largo, FL: Careers, 1984.
- Chronicle Guidance Publications. "Industrial Engineer." *Chronicle Occupational Brief*. Moravia, NY, 1984.
- Club Managers Association of America. *Club Management—A Path to a Rewarding Future*. Bethesda, MD, n.d.
- The Future Farmers of America. *Your Career in Agriculture Agribusiness*. Alexandria, VA, n.d.
- General Electric Company. "What's it Like to be an Engineer?" GE, 1983.
- The Metallurgical Society. *A Career in Metallurgical Engineering and Materials Science*. Warrendale, PA, 1981.
- Michigan Recreation and Park Association. *Careers in Recreation and Parks*. Lansing, MI, 1971.
- National Health Council, Inc. *200 Ways to Put Your Talent to Work in the Health Field*. New York, 1986.
- National Association of Social Workers. *The Many Career Opportunities in Social Work*. Silver Spring, MD, 1983.
- National Institute for the Foodservice Industry. "Careers in Foodservice." Chicago, IL, n.d.

PERIODICALS

- Baxter, Neale. "Job Training for Enlisted Personnel in the Military." *Occupational Outlook Quarterly*, 27, 1983: 2-13.
- Career Opportunities News*. Robert Calvert Jr. and Mary Blake French: Garrett Park Press, Garrett Park, MD 20896.
- Kessler, George M. "Careers in Horticulture." *Hort. Science*, 17, 1982: 327-332.
- Martin, Gail M. "Math and Your Career." *Occupational Outlook Quarterly*, pp. 28-31, Summer, 1983.
- "English and Your Career." *Occupational Outlook Quarterly*, 27, 1983: 23-25.
- "Science and Your Career." *Occupational Outlook Quarterly*, pp. 23-27, Spring, 1983.
- "Social Studies and Your Career." *Occupational Outlook Quarterly*, 27, 1983: 26-28.

COMPUTERIZED OCCUPATIONAL INFORMATION SYSTEMS

- Michigan Occupational Information System*. Michigan Department of Education, Lansing, MI: 1985, 1986.
- Eureka Skills Inventory Worksheet*. California Career Information System, Richmond, CA, 1985.